GenCore version 4.5

OM protein - protein search, using sw model

Run on: September 4, 2002, 16:09:06 ; Search time 165.17 Seconds
(without alignments)
147.946 Million cell updates/sec

Title: US-09-052-089A-3
Perfect score: 1066
Sequence: 1 RTIINKLFFDLAQEEENVLD.....DLQSADKEIMSLKKKLTMLQ 220

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues

Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_032802:*
1: /SIDS5/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS5/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1046	98.1	469	19	AAW37881	BRCA1 modulator pr
2	1046	98.1	469	20	AAY30149	Amino acid sequenc
3	168	15.8	962	20	AAY31646	Human transport-as
4	167.5	15.7	1017	22	AAE02246	Domestic mite Bt11
5	167	15.7	484	22	AAM78985	Human protein SEQ
6	167	15.7	533	22	AAM79969	Human protein SEQ
7	166.5	15.6	875	22	AAE02245	Domestic mite Bt11
8	166.5	15.6	878	22	AAE02242	Domestic mite Bt11
9	164	15.4	1374	22	AAB69070	Human male enhance
10	161	15.1	1325	18	AAW19540	Male-enhanced anti
11	161	15.1	1325	20	AAW94391	Mouse male enhance
12	156	14.6	2482	16	AAR72826	Human mitosin. Ho
13	156	14.6	2482	19	AAW23996	Human mitosin amin
14	156	14.6	3248	17	AAR99795	Kinetochore protei
15	155	14.5	455	22	ABB61289	Drosophila melanog
16	154.5	14.5	808	22	ABG05140	Novel human diagno
17	154	14.4	1177	22	AAB96721	Putative P. abyssi
18	153.5	14.4	1456	22	ABB58673	Drosophila melanog
19	152	14.3	1489	22	ABB59948	Drosophila melanog
20	152	14.3	1975	22	ABB62094	Drosophila melanog
21	152	14.3	2067	22	ABB71125	Drosophila melanog
22	151.5	14.2	463	22	ABG03671	Novel human diagno
23	151.5	14.2	753	21	AAB08316	A human M-phase ph
24	151.5	14.2	1780	22	AAM38681	Human polypeptide
25	151.5	14.2	1788	22	AAM40467	Human polypeptide
26	151	14.2	561	19	AAW63043	Streptococcus uber
27	151	14.2	721	21	AAB21227	Protein encoded by
28	150	14.1	990	22	AAM78520	Human protein SEQ
29	149.5	14.0	1761	20	AAY15457	Human laminin beta
30	149	14.0	359	21	AAB29659	Human membrane-ass
31	148.5	13.9	963	22	AAM78880	Human protein SEQ
32	148.5	13.9	979	22	AAM79864	Human protein SEQ
33	147.5	13.8	2056	22	ABB59344	Drosophila melanog
34	147.5	13.8	2633	22	ABG06505	Novel human diagno
35	147.5	13.8	2663	22	AAM39097	Human polypeptide
36	147.5	13.8	2688	22	AAM40883	Human polypeptide
37	146	13.7	746	21	AAG46982	Arabidopsis thalia
38	146	13.7	788	21	AAG46981	Arabidopsis thalia
39	146	13.7	931	22	AAM79504	Human protein SEQ
40	145.5	13.6	1851	22	ABG01723	Novel human diagno
41	145.5	13.6	1960	22	AAM78854	Human protein SEQ
42	145.5	13.6	2143	22	ABG01716	Novel human diagno
43	145	13.6	1879	22	AAM25750	Human protein sequ
44	144.5	13.6	534	19	AAW46823	Amino acid sequenc
45	144.5	13.6	687	19	AAW41586	Truncated restin p

ALIGNMENTS

RESULT 1
AAW37881
ID AAW37881 standard; Protein; 469 AA.
XX
AC AAW37881;
XX
DT 28-AUG-1998 (first entry)
XX
DE BRCA1 modulator protein 091-21A31.
XX
KW BRCA1 modulator protein; 091-21A31; breast cancer antigen 1;
KW tumour suppressor protein; diagnosis; therapy; human.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 3..54
FT /note= "zinc finger motif"
FT Domain 229..255
FT /note= "leucine zipper motif"
XX
PN WO9810066-A1.
XX
PD 12-MAR-1998.
XX
PF 06-AUG-1997; 97WO-US13944.
XX
PR 04-SEP-1996; 96US-0025601.
XX
PA (ONYX-) ONYX PHARM INC.
XX
PI Ligenfelter C, Polakis P, Rubinfeld B, Vuong TT;
XX
DR WPI; 1998-193616/17.

```
DR   N-PSDB; AAV29062.
XX
PT   Breast cancer antigen 1 modulator protein - useful for diagnosing
PT   diseases involving unwanted cell growth, e.g. breast cancer, and for
PT   producing therapeutics for treatment of such diseases
XX
PS   Example 1; Fig 1; 73pp; English.
XX
CC   This polypeptide comprises a 53 kDa BRCA1 modulator protein that
CC   binds to the tumour suppressor gene product BRC1, and which is
CC   characterised by a zinc finger domain and a leucine zipper motif.
CC   Its amino acid sequence was deduced from the nucleotide sequence
CC   of a cDNA clone (see AAV29062), designated 091-21A31 (ATCC 98141),
CC   isolated from a HeLa cell cDNA library using a yeast two-hybrid
CC   assay.  3 cDNA clones (see also AAV29063-64) coding for BRCA1
CC   modulator proteins (see AAW37881-83) have been characterised. Vectors
CC   and host cells comprising the isolated nucleic acid sequences are
CC   claimed, as well as a process for producing BRCA1 modulator protein
CC   by culturing these host cells.  BRCA1 modulator proteins and nucleic
CC   acids can be used to diagnose diseases involving unwanted cell
CC   growth, e.g. breast cancer, and to identify compounds that alter
CC   BRCA1 interaction with BRCA1 modulators for the treatment of such
CC   diseases.
XX
SQ   Sequence   469 AA;


  Query Match             98.1%;  Score 1046;  DB 19;  Length 469;
  Best Local Similarity   98.6%;  Pred. No. 7.1e-79;
  Matches  217;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1 RTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERN 60
           |||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db      56 rtiinklffdlaqeeenvldaeflkneldnvraqlsqkdkekrdsqviidtlrdtleern 115

Qy      61 ATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQS 120
           |||||||||||||||||||||||||||||||||||||||| ||||||||||||||||
Db     116 atvvslqqalgkaemlcstlkkqmkyleqqqdetkqaqeearrlrskmktmeqielllqs 175

Qy     121 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSK 180
           | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     176 qrpeveemirdmgvgqsaveqlavycvslkkeyenlkearkasgevadklrkdlfssrsk 235

Qy     181 LQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
           ||||||||||||||||||||||||||||||||||||||||
Db     236 lqtvyseldqaklelksaqkdlqsadkeimslkkkltmlq 275


RESULT   2
AAY30149
ID   AAY30149 standard; Protein; 469 AA.
XX
AC   AAY30149;
XX
DT   27-OCT-1999  (first entry)
XX
DE   Amino acid sequence of a BRCA1 modulator protein.
XX
KW   Modulator protein; BRCA1; tumour suppressor protein; breast cancer;
KW   ovarian cancer; cell growth; cell proliferation.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Region          3..32
FT                   /note= "zinc finger motif"
FT   Region          230..255
FT                   /note= "leucine zipper motif"
XX
PN   US5948643-A.
XX
PD   07-SEP-1999.
XX
PF   13-AUG-1997;   97US-0968751.
XX
PR   13-AUG-1997;   97US-0968751.
XX
PA   (ONYX-) ONYX PHARM INC.
XX
PI   Lingenfelter C,  Polakis PG,  Rubinfeld B,  Vuong TT;
XX
DR   WPI; 1999-517952/43.
DR   N-PSDB; AAX86754.
XX
PT   Modulator proteins that bind to and modulate the activity of the
PT   BRCA1 tumour suppressor gene product, useful for the treatment of
PT   ovarian and breast cancer
XX
PS   Example 1; Fig 1; 35pp; English.
XX
CC   The present sequence represents a modulator protein, that binds to and
CC   modulate the activity of the BRCA1 gene product (BRCA1). The BRCA1
CC   protein has been characterized as a tumour suppressor protein.
CC   Alterations in the amino acid sequence of BRCA1 causes breast and ovarian
CC   cancers by removing the controls on cell growth and proliferation.
CC   Research has shown that different regions on the BRCA1 molecule have
CC   different effects on cell growth and tumour suppression (e.g. full length
CC   truncated BRCA1 has no effect on breast cancer cell growth but will
CC   inhibit ovarian cancer cell growth). It has been suggested that different
CC   host cell factors (e.g. proteins) interact with different regions of the
CC   BRCA1 to control its function. The identification of these proteins
CC   (e.g. BRCA1MP) will facilitate the development of novel diagnostic
CC   methods and new therapeutics for identifying and treating cancers caused
CC   by changes in the expression or activity of BRCA1.
XX
SQ   Sequence   469 AA;


  Query Match             98.1%;  Score 1046;  DB 20;  Length 469;
  Best Local Similarity   98.6%;  Pred. No. 7.1e-79;
  Matches  217;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

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           |||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db      56 rtiinklffdlaqeeenvldaeflkneldnvraqlsqkdkekrdsqviidtlrdtleern 115

Qy      61 ATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQS 120
           |||||||||||||||||||||||||||||||||||||||| ||||||||||||||||
Db     116 atvvslqqalgkaemlcstlkkqmkyleqqqdetkqaqeearrlrskmktmeqielllqs 175

Qy     121 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSK 180
           | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     176 qrpeveemirdmgvgqsaveqlavycvslkkeyenlkearkasgevadklrkdlfssrsk 235

Qy     181 LQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
           ||||||||||||||||||||||||||||||||||||||||
Db     236 lqtvyseldqaklelksaqkdlqsadkeimslkkkltmlq 275


RESULT   3
AAY31646
ID   AAY31646 standard; Protein; 962 AA.
XX
AC   AAY31646;
XX
DT   02-NOV-1999  (first entry)
XX
DE   Human transport-associated protein-8 (TRANP-8).
XX
KW   Transport-associated protein; TRANP; nuclear pore; nuclear transport;
KW   vesicle trafficking; cancer; cystic fibrosis; multidrug resistance;
KW   hypercholesterolaemia; diagnosis; treatment.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
```

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FT   Modified-site   18
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   34
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   74
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   81
FT                   /note= "O-phosphorylated by tyrosine kinase"
FT   Modified-site   91
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   101
FT                   /note= "N-glycosylated"
FT   Modified-site   123
FT                   /note= "N-glycosylated"
FT   Modified-site   129
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   243
FT                   /note= "N-glycosylated"
FT   Modified-site   336
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FT                   /note= "O-phosphorylated by casein kinase II"
XX
PN   WO9941373-A2.
XX
PD   19-AUG-1999.
XX
PF   05-FEB-1999;   99WO-US02527.
XX
PR   11-FEB-1998;   98US-0021764.
XX
PA   (INCY-) INCYTE PHARM INC.
XX
PI   Au-Young J,  Bandman O,  Baughn MR,  Corley NC,  Guegler KJ;
PI   Hillman JL,  Lal P,  Yue H;
XX
DR   WPI; 1999-508646/42.
DR   N-PSDB; AAZ11738.
XX
PT   Human TRANP coding sequences, used to treat transport disorders and
PT   cancer
XX
PS   Claim 1; Page 74-77; 87pp; English.
XX
CC   This sequence represents human transport-associated protein-8 (TRANP-8).
CC   The DNA sequence was first identified in a human colon tissue
CC   cDNA library. The full-length cDNA was derived from a series of
CC   overlapping and/or extended cDNA sequences and is a consensus.
CC   TRANP-1 to 9 (AAY31639-Y31647) are a novel group of proteins with
CC   chemical and structural homology that are involved in molecular
CC   transport. Various disorders are associated with defects in the transport
CC   of molecules, either intracellularly or to the extracellular
CC   environment. Examples of such disorders include cystic fibrosis,
CC   multidrug resistance, hypercholesterolaemia and certain forms of diabetes
CC   mellitus. Defective nuclear transport may play a role in cancer. For
CC   example, the BRCA1 protein, associated with familial breast cancer, is
CC   normally imported into the nucleus via nuclear pore complexes, but is
CC   aberrantly located in the cytoplasm in breast cancer cells. In other
CC   cancers, cells can secrete excessive amounts of hormones e.g, cancers of
CC   the adrenal medulla can secrete excessive amounts of adrenaline and
CC   noradrenaline, leading to hypertension. TRANP is expressed in cancer
CC   cells, and transport disorders result from either excessive or
CC   insufficient molecular transport. Anti-TRANP antibodies and nucleic acids
CC   encoding TRANP can be used as diagnostic tools for such disorders. TRANP
CC   antagonists can be used to treat or prevent a cancer associated with
CC   increased TRANP expression. Anti-TRANP antibodies can be used directly
CC   as an antagonist or as a targetting mechanism for drugs. Alternatively,
CC   a a TRANP antisense nucleotide can be used to treat cancers. A TRANP
CC   agonist or expression vector may be used to treat a disorder caused by
CC   reduced transport of biologically active molecules.
XX
SQ   Sequence   962 AA;


  Query Match             15.8%;  Score 168;  DB 20;  Length 962;
  Best Local Similarity   20.2%;  Pred. No. 1.5e-05;
  Matches   65;  Conservative   62;  Mismatches   85;  Indels  110;  Gaps    7;

Qy       3 IINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNAT 62
           | :  |  | :| | |: :   |:  :: : :  :|  |: |:  |:   :: : |::
Db     608 ifdheftklvkelegvitkaiyksseedkkeeevkktleqhdn--ivthyknmireqdlq 665

Qy      63 VVSLQQALG----KAEMLCSTLKKQMKYLEQQQDE-----------------TKQAQ-- 98
           :  |:| :     : | | : : :|:  ::| :|:                    :: ||
Db     666 leelrqqvstlkcqneqlqtavtqqvsqiqqhkdqynllkiqlgkdnqhqgsysegaqmn 725

Qy      99 ----EEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVGQSA---------------- 138
               || |||| ::: ::: : |||||| | : || :|   |::
Db     726 giqpeeigrlreeieelkrnqellqsqltekdsmienmkssqtsgtneqssaivsardse 785

Qy     139 -VEQLAVYCVSLK---------------------------------------------- 150
            | :|     :||
Db     786 qvaelkqelatlksqlnsqsveitklqtekqellqkteafaksvevqgetetiiatkttd 845

Qy     151 ---------KEYENLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKD 201
                  :| : ||   ||  |    ::: | || | :  : :| |: :||:  ::|:
Db     846 vegrlsallqetkelkneikalseertaikeqldssnstiailqtekdkleleitdskke 905

Qy     202 -------LQSADKEIMSLKKKL 216
                 |   |::|:||| ||
Db     906 qddllvlladqdqkilslknkl 927


RESULT   4
AAE02246
ID   AAE02246 standard; Protein; 1017 AA.
XX
AC   AAE02246;
XX
DT   31-JUL-2001  (first entry)
XX
DE   Domestic mite Bt11 allergen polymorphic variant.
XX
KW   Mite; immunogenic protein; Bt allergen; therapy; atopic dermatitis;
KW   immediate hypersensitivity; systemic anaphylaxis; allergic rhinitis;
KW   asthma; antiallergic; antiinflammatory; immunosuppressive.
XX
OS   Blomia tropicalis.
XX
FH   Key             Location/Qualifiers
```

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FT   Misc-difference 41
FT                   /note= "Encoded by TAG"
FT   Misc-difference 42
FT                   /note= "Encoded by TAG"
FT   Misc-difference 56
FT                   /note= "Encoded by TGA"
FT   Misc-difference 71
FT                   /note= "Encoded by TAA"
FT   Misc-difference 76
FT                   /note= "Encoded by TAG"
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FT   Misc-difference 965
FT                   /note= "Encoded by TAA"
FT   Misc-difference 998
FT                   /note= "Encoded by TAA"
XX
PN   WO200130817-A1.
XX
PD   03-MAY-2001.
XX
PF   10-OCT-2000; 2000WO-AU01227.
XX
PR   26-OCT-1999;   99SG-0005313.
PR   18-JUL-2000; 2000AU-0008842.
PR   18-JUL-2000; 2000AU-0008844.
PR   18-JUL-2000; 2000AU-0008845.
XX
PA   (UYSI-) UNIV SINGAPORE NAT.
XX
PI   Chua KY,  Cheong N,  Lee BW;
XX
DR   WPI; 2001-308609/32.
DR   N-PSDB; AAD06245.
XX
PT   Novel immunogenic protein derived from house mite, Blomia tropicalis
PT   useful for treating and diagnosing conditions involving induction of
PT   immuneresponse to mite, such as allergic asthma, atopic dermatitis,
PT   rhinitis -
XX
PS   Claim 6; Fig 7; 230pp; English.
XX
CC   The present invention relates to immunogenic proteins, referred as Bt
CC   allergen, is derived from domestic mite, Blomia tropicalis. The specific
CC   Bt allergens of the invention includes Bt11, Bt10, Bt5 and BtA2. The
CC   immunogenic protein is useful for preventing, reducing or ameliorating
CC   Blomia tropicalis hypersensitivity condition such as atopic dermatitis,
CC   immediate hypersensitivity, systemic anaphylaxis, allergic rhinitis or
CC   asthma and for modulating an immune response directed to Bt allergen in
CC   a subject. The Bt allergens are also useful for detecting antibody
CC   directed to all or a part of Bt allergen in a biological sample from a
CC   subject. Antibodies to Bt allergens are also used as therapeutic or
CC   diagnostic agents, to screen Bt immunoassays and as antagonists to
CC   inhibit Bt activity under circumstances where temporary hypersensitivity
CC   inhibition is required. The present sequence is a protein encoded
CC   by Bt11 polymorphic variant.
XX
SQ   Sequence   1017 AA;


  Query Match           15.7%;  Score 167.5;  DB 22;  Length 1017;
  Best Local Similarity   22.8%;  Pred. No. 1.7e-05;
  Matches   64;  Conservative   60;  Mismatches   74;  Indels   83;  Gaps   11;

Qy      11 LAQEEENVLD--REFLKNELDN---VRAQLSQ---------KDKEKRDS---------QV 47
           |:||   ::     |: |  |||   :: |::|         :|:|:: |         :|
Db     293 lsqenselikevhey-kisldnanhlkgqiaqqledtrhrledeerkrsslenhahtlev 351

Qy      48 IIDTLRDTLEERNATVVSLQQALGKA---------------------------------- 73
             :::|:  ||| :   : |:: | ||
Db     352 eleslkvqleeesearlelerqltkangdaaswkskyeaelqahvdeveelrrkmaqkis 411

Qy      74 ---EML------CSTLKKQMKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 120
               | |      || |:||   |: : :    : ::|   |  |  ::  :|:| | |:|
Db     412 eyeeqleallnkcsalekqkarlqseaevlimdlekatahaqalekrvsqlekinldlks 471

Qy     121 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKK---EYENLKEARKASGEVADKLRKDLFSS 177
           :| ||  ::       :   : | |    |:|   ||| |:: ::|       ||  ||  :
Db     472 kleevsmll------eqtqkdlrvkiadlqklqheyeklrdqkealarenkkladdlaea 525

Qy     178 RSKLQTVYSELDQAKLELK---SAQKDLQSADKEIMSLKKK 215
           :|:|   :  : : ::|:|   : :::| :| ||  :|:|:
Db     526 ksqlndahrriheqeieikrlenereelaaaykeaetlrkq 566


RESULT   5
AAM78985
ID   AAM78985 standard; Protein; 484 AA.
XX
AC   AAM78985;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 1647.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK52118.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 3984-3985; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
```

```
CC   were missing at the time of publication.
XX
SQ   Sequence   484 AA;


  Query Match             15.7%;  Score 167;  DB 22;  Length 484;
  Best Local Similarity   24.2%;  Pred. No. 7.6e-06;
  Matches   58;  Conservative   50;  Mismatches   94;  Indels   38;  Gaps    7;

Qy       6 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 65
           |   |: : : ||| :     :::|:: ||  |:|:    :  : :|:      :  : :
Db      27 kdmldvkerkvnvlqk-----kienlqeqlrdkekqmsslkervkslqadttntdtaltt 81

Qy      66 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEV 125
           |::|| : |     ||      ||:  : :: |||    :  :| :::   |||  | |
Db      82 leealaekertierlk------eqrdrderekqeeidnykkdlkdlkekvsllqgdlsek 135

Qy     126 EEMIRDMGVGQS-----------------AVEQLAVYCV----SLKKEYENLKEARKAS 163
           |  : |:    |                  |:||    |:     ||| :|   ||| ||
Db     136 easlldlkehasslassglkkdsrlktleialeqkkeeclkmesqlkkaheaalear-as 194

Qy     164 GEVADK---LRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
            |::|:   | :::   : :     :|:|:    ||  : :    ||:|  | : ||  |
Db     195 pemsdriqhlereitrykdesskaqaevdrlleilkeveneкndkdkkiael-esltsrq 253


RESULT   6
AAM79969
ID   AAM79969 standard; Protein; 533 AA.
XX
AC   AAM79969;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 3615.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK53102.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 397; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   533 AA;


  Query Match             15.7%;  Score 167;  DB 22;  Length 533;
  Best Local Similarity   24.2%;  Pred. No. 8.6e-06;
  Matches   58;  Conservative   50;  Mismatches   94;  Indels   38;  Gaps    7;

Qy       6 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 65
           |   |: : : ||| :     :::|:: ||  |:|:    :  : :|:      :  : :
Db      76 kdmldvkerkvnvlqk-----kienlqeqlrdkekqmsslkervkslqadttntdtaltt 130

Qy      66 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEV 125
           |::|| : |     ||      ||:  : :: |||    :  :| :::   |||  | |
Db     131 leealaekertierlk------eqrdrderekqeeidnykkdlkdlkekvsllqgdlsek 184

Qy     126 EEMIRDMGVGQS-----------------AVEQLAVYCV----SLKKEYENLKEARKAS 163
           |  : |:    |                  |:||    |:     ||| :|   ||| ||
Db     185 easlldlkehasslassglkkdsrlktleialeqkkeeclkmesqlkkaheaalear-as 243

Qy     164 GEVADK---LRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
            |::|:   | :::   : :     :|:|:    ||  : :    ||:|  | : ||  |
Db     244 pemsdriqhlereitrykdesskaqaevdrlleilkeveneкndkdkkiael-esltsrq 302


RESULT   7
AAE02245
ID   AAE02245 standard; Protein; 875 AA.
XX
AC   AAE02245;
XX
DT   31-JUL-2001  (first entry)
XX
DE   Domestic mite Bt11 allergen.
XX
KW   Mite; immunogenic protein; Bt allergen; therapy; atopic dermatitis;
KW   immediate hypersensitivity; systemic anaphylaxis; allergic rhinitis;
KW   asthma; antiallergic; antiinflammatory; immunosuppressive.
XX
OS   Blomia tropicalis.
XX
PN   WO200130817-A1.
XX
PD   03-MAY-2001.
XX
PF   10-OCT-2000; 2000WO-AU01227.
XX
PR   26-OCT-1999;   99SG-0005313.
PR   18-JUL-2000; 2000AU-0008842.
PR   18-JUL-2000; 2000AU-0008844.
PR   18-JUL-2000; 2000AU-0008845.
XX
PA   (UYSI-) UNIV SINGAPORE NAT.
XX
PI   Chua KY,  Cheong N,  Lee BW;
XX
DR   WPI; 2001-308609/32.
DR   N-PSDB; AAD06237.
XX
PT   Novel immunogenic protein derived from house mite, Blomia tropicalis
```

```
PT   useful for treating and diagnosing conditions involving induction of
PT   immuneresponse to mite, such as allergic asthma, atopic dermatitis,
PT   rhinitis -
XX
PS   Disclosure; Page 162-166; 230pp; English.
XX
CC   The present invention relates to immunogenic proteins, referred to as Bt
CC   allergens, derived from domestic mite (Blomia tropicalis). The specific
CC   Bt allergens of the invention includes Bt11, Bt10, Bt5 and BtA2. The
CC   immunogenic protein is useful for preventing, reducing or ameliorating
CC   Blomia tropicalis hypersensitivity condition such as atopic dermatitis,
CC   immediate hypersensitivity, systemic anaphylaxis, allergic rhinitis or
CC   asthma and for modulating an immune response directed to Bt allergen in
CC   a subject. The Bt allergens are also useful for detecting antibody
CC   directed to all or a part of Bt allergen in a biological sample from a
CC   subject. Antibodies to Bt allergens are also used as therapeutic or
CC   diagnostic agents, to screen Bt immunoassays and as antagonists to
CC   inhibit Bt activity under circumstances where temporary hypersensitivity
CC   inhibition is required. The present sequence is Bt11 allergen.
XX
SQ   Sequence   875 AA;


  Query Match            15.6%;  Score 166.5;  DB 22;  Length 875;
  Best Local Similarity  22.8%;  Pred. No. 1.7e-05;
  Matches   64;  Conservative   60;  Mismatches   74;  Indels   83;  Gaps   11;

Qy      11 LAQEEENVLD--REFLKNELDN---VRAQLSQ---------KDKEKRDS---------QV 47
           |:||   ::    |: |  |||   :: |::|         :|:|:: |         :|
Db     204 lsqenselikevhey-kisldnanhlkgqiaqqledtrhrledeerkrsslenhahtlev 262

Qy      48 IIDTLRDTLEERNATVVSLQQALGKA---------------------------------- 73
            :::|:  ||| :   : |:: | ||
Db     263 eleslkvqleeesearlelerqltkangdaaswkskyeaelqahvdeveelrrkmaqkis 322

Qy      74 ---EML------CSTLKKQMKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 120
             | |      || |:||   |: : :    : ::|   |  |  ::  :|:| | |:|
Db     323 eygeqleallnkcsalekqkarlqsevevlimdlekatahaqalekrvsqlekinldlks 382

Qy     121 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKK---EYENLKEARKASGEVADKLRKDLFSS 177
           :| ||  ::      :   : | |    |:|   ||| |:: ::|      ||  ||  :
Db     383 kleevsmll------eqtqkdlrvkiadlqklqheyeklrdqkealarenkkladdlaea 436

Qy     178 RSKLQTVYSELDQAKLELK---SAQKDLQSADKEIMSLKKK 215
           :|:|   :  : : ::|:|   : :::| :| ||  :|:|:
Db     437 ksqlndahrriheqeieikrlenereelaaaykeaetlrkq 477


RESULT   8
AAE02242
ID   AAE02242 standard; Protein; 878 AA.
XX
AC   AAE02242;
XX
DT   31-JUL-2001  (first entry)
XX
DE   Domestic mite Bt11 allergen #7.
XX
KW   Mite; immunogenic protein; Bt allergen; therapy; atopic dermatitis;
KW   immediate hypersensitivity; systemic anaphylaxis; allergic rhinitis;
KW   asthma; antiallergic; antiinflammatory; immunosuppressive.
XX
OS   Blomia tropicalis.
XX
PN   WO200130817-A1.
XX
PD   03-MAY-2001.
XX
PF   10-OCT-2000; 2000WO-AU01227.
XX
PR   26-OCT-1999;   99SG-0005313.
PR   18-JUL-2000; 2000AU-0008842.
PR   18-JUL-2000; 2000AU-0008844.
PR   18-JUL-2000; 2000AU-0008845.
XX
PA   (UYSI-) UNIV SINGAPORE NAT.
XX
PI   Chua KY,  Cheong N,  Lee BW;
XX
DR   WPI; 2001-308609/32.
DR   N-PSDB; AAD06236.
XX
PT   Novel immunogenic protein derived from house mite, Blomia tropicalis
PT   useful for treating and diagnosing conditions involving induction of
PT   immuneresponse to mite, such as allergic asthma, atopic dermatitis,
PT   rhinitis -
XX
PS   Claim 4; Fig 3; 230pp; English.
XX
CC   The present invention relates to immunogenic proteins, referred as Bt
CC   allergen, is derived from domestic mite, Blomia tropicalis. The specific
CC   Bt allergens of the invention includes Bt11, Bt10, Bt5 and BtA2. The
CC   immunogenic protein is useful for preventing, reducing or ameliorating
CC   Blomia tropicalis hypersensitivity condition such as atopic dermatitis,
CC   immediate hypersensitivity, systemic anaphylaxis, allergic rhinitis or
CC   asthma and for modulating an immune response directed to Bt allergen in
CC   a subject. The Bt allergens are also useful for detecting antibody
CC   directed to all or a part of Bt allergen in a biological sample from a
CC   subject. Antibodies to Bt allergens are also used as therapeutic or
CC   diagnostic agents, to screen Bt immunoassays and as antagonists to
CC   inhibit Bt activity under circumstances where temporary hypersensitivity
CC   inhibition is required. The present sequence is Bt11 allergen.
XX
SQ   Sequence   878 AA;


  Query Match            15.6%;  Score 166.5;  DB 22;  Length 878;
  Best Local Similarity  22.8%;  Pred. No. 1.8e-05;
  Matches   64;  Conservative   60;  Mismatches   74;  Indels   83;  Gaps   11;

Qy      11 LAQEEENVLD--REFLKNELDN---VRAQLSQ---------KDKEKRDS---------QV 47
           |:||   ::    |: |  |||   :: |::|         :|:|:: |         :|
Db     207 lsqenselikevhey-kisldnanhlkgqiaqqledtrhrledeerkrsslenhahtlev 265

Qy      48 IIDTLRDTLEERNATVVSLQQALGKA---------------------------------- 73
            :::|:  ||| :   : |:: | ||
Db     266 eleslkvqleeesearlelerqltkangdaaswkskyeaelqahvdeveelrrkmaqkis 325

Qy      74 ---EML------CSTLKKQMKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 120
             | |      || |:||   |: : :    : ::|   |  |  ::  :|:| | |:|
Db     326 eygeqleallnkcsalekqkarlqsevevlimdlekatahaqalekrvsqlekinldlks 385

Qy     121 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKK---EYENLKEARKASGEVADKLRKDLFSS 177
           :| ||  ::      :   : | |    |:|   ||| |:: ::|      ||  ||  :
Db     386 kleevsmll------eqtqkdlrvkiadlqklqheyeklrdqkealarenkkladdlaea 439

Qy     178 RSKLQTVYSELDQAKLELK---SAQKDLQSADKEIMSLKKK 215
           :|:|   :  : : ::|:|   : :::| :| ||  :|:|:
Db     440 ksqlndahrriheqeieikrlenereelaaaykeaetlrkq 480


RESULT   9
AAB69070
ID   AAB69070 standard; Protein; 1374 AA.
XX
AC   AAB69070;
XX
DT   19-APR-2001  (first entry)
XX
DE   Human male enhanced antigen-2 (MEA-2) protein sequence SEQ ID NO:2.
XX
KW   Human; male enhanced antigen-2; MEA-2; identification; spermatogenesis;
KW   spermatogenesis disease; chromosome marker; pancreatic cancer.
XX
OS   Homo sapiens.
XX
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PN   JP2000316580-A.
XX
PD   21-NOV-2000.
XX
PF   30-APR-1999;   99JP-0125196.
XX
PR   30-APR-1999;   99JP-0125196.
XX
PA   (ITOH-) ITO HAM KK.
XX
DR   WPI; 2001-128256/14.
DR   N-PSDB; AAF32508.
XX
PT   A new protein, human male-enhanced antigen-2, useful for detecting
PT   spermatogenesis diseases -
XX
PS   Claim 1; Page 12-15; 21pp; Japanese.
XX
CC   The present sequence represents the human male enhanced antigen-2
CC   (MEA-2). The present invention also described an antibody specific for
CC   the MEA-2 protein. The antibody can be used for the identification of a
CC   gene causing diseases related to spermatogenesis. The MEA-2 nucleotide
CC   sequence is useful as a chromosome marker, and in the detection of
CC   pancreatic cancer.
XX
SQ   Sequence   1374 AA;


  Query Match             15.4%;  Score 164;  DB 22;  Length 1374;
  Best Local Similarity   25.0%;  Pred. No. 4.9e-05;
  Matches   60;  Conservative   46;  Mismatches   96;  Indels   38;  Gaps    7;

Qy      13 QEEENVLDREFLKNELD------NVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSL 66
           :|  ::|:    | | |       |:| | :|::| |  : ::  |: :||:    | ||
Db    1116 rehnsiletalakreadlvqlnlqvqavlqrkeeedrqmkhlvqalqaslekekekvnsl 1175

Qy      67 QQALGKAEMLCSTLKKQMKYLEQQQDETK-------------QAQEEAGRLRSKMKTME- 112
           :: :  |::     ::  |    :  | |             ||: :  ::|    : |
Db    1176 keqvaaakveaghnrrhfkaaslelsevkkelqakehlvqklqaeaddlqiregkhsqei 1235

Qy     113 ---QIEL--------LLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARK 161
             | ||        ||| ||   :| :    ||   :| |       ::| ::||:
Db    1236 aqfqaelaearaqlqllqkql---deqlskqpvgnqemenlkwevdqkereiqslkqqld 1292

Qy     162 ASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKL-TMLQ 220
           : :     ||:|   :  || | |||: |: :|   |||      ::  ||  : |:||
Db    1293 lteqqg---rkeleglqqllqnvkselemaqedlsmtqkdkfmlqakvselknnmktllq 1349


RESULT  10
AAW19540
ID   AAW19540 standard; Protein; 1325 AA.
XX
AC   AAW19540;
XX
DT   16-SEP-1997  (first entry)
XX
DE   Male-enhanced antigen-2.
XX
KW   Mouse; MEA-2; detecting mutation.
XX
OS   Mus musculus domesticus.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 305..320
FT                   /note= "Not shown in the specification"
XX
PN   JP09121869-A.
XX
PD   13-MAY-1997.
XX
PF   07-NOV-1995;   95JP-0311638.
XX
PR   07-NOV-1995;   95JP-0311638.
XX
PA   (ITOH-) ITO HAM KK.
XX
DR   WPI; 1997-314229/29.
DR   N-PSDB; AAT74034.
XX
PT   Male-enhanced antigen Mea-2 gene - especially from mouse, useful for
PT   detecting mutation(s)
XX
PS   Claim 8; Page 9-10; 13pp; Japanese.
XX
CC   The present sequence represents male-enhanced antigen-2 (MEA-2), which
CC   has been derived from a domestic mouse. The polynucleotide encoding
CC   the protein can be used for the detection of mutations affecting the
CC   MEA-2 gene.
XX
SQ   Sequence   1325 AA;


  Query Match             15.1%;  Score 161;  DB 18;  Length 1325;
  Best Local Similarity   23.1%;  Pred. No. 8.4e-05;
  Matches   57;  Conservative   48;  Mismatches   90;  Indels   52;  Gaps    7;

Qy      13 QEEENVLDREFLKNELD------NVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSL 66
           :|  ::|:    | | |       |:| | :|::| |  : ::  |: :||:    | ||
Db    966 rehnsiletalakreadlvqlnlqvqavlqrkeeedrqmkqlvqalqvslekekmevnsl 1025

Qy      67 QQALGKA----------------------------EMLCSTLKKQMKYLEQQ----QDET 94
           :: :  |                            | |  ||: ::  |: |      |
Db    1026 keqmaaarieaghnrrhfkaatlelsevkkelqakehlvqtlqaevdelqiqdgkhsqei 1085

Qy      95 KQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYE 154
           | | |    |::::       ||| :|   :| :     |   :| |      ::| :
Db    1086 aqfqtelaeartqlq-------llqkkl---deqmsqqptgsqemedlkweldqkereiq 1135

Qy     155 NLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKK 214
           :||:    : :     :|:|  ::  |||: |||:  : :|   |||      ::  ||
Db    1136 slkqqldlteqqg---kkelegtqqtlqtikselemvqedlsetqkdkfmlqakvselkn 1192

Qy     215 KL-TMLQ 220
           : |:||
Db    1193 nmktllq 1199


RESULT  11
AAW94391
ID   AAW94391 standard; Protein; 1325 AA.
XX
AC   AAW94391;
XX
DT   14-APR-1999  (first entry)
XX
DE   Mouse male enhanced antigen 2.
XX
KW   Mouse; male enhanced antigen 2; Mea-2; Mus musculus domesticus;
KW   spermatogenesis; regulation; contraceptive; sterile; inhibition.
XX
OS   Mus sp.
XX
PN   JP11018622-A.
XX
PD   26-JAN-1999.
XX
PF   04-JUL-1997;   97JP-0179490.
XX
PR   04-JUL-1997;   97JP-0179490.
XX
PA   (ITOH-) ITO HAM KK.
XX
DR   WPI; 1999-160962/14.
DR   N-PSDB; AAX04132.
XX
```

```
PT   Regulation of spermatogenesis using Mea-2 gene information - using
PT   anti-sense oligo- or poly:nucleotide(s), used for production of
PT   contraceptives
XX
PS   Claim 4; Page 8-12; 27pp; Japanese.
XX
CC   The present sequence represents mouse male enhanced antigen 2 (Mea-2).
CC   The present invention describes the regulation of spermatogenesis by
CC   using Mea-2 information. A non-human living organism can have its
CC   spermatogenesis inhibited by breakage of the whole or part of the Mea-2
CC   gene. Also described are: (1) the creation of the spermatogenesis-
CC   inhibited organism; (2) a drug composition containing an oligonucleotide
CC   or polynucleotide containing base sequences that pair with at least part
CC   of the Mea-2 gene and are able to inhibit the expression of Mea-2 gene;
CC   and (3) the creation of an aimed gene-possessing organism using the
CC   spermatogenesis inhibited organism. The organism is useful for producing
CC   contraceptive drugs.
XX
SQ   Sequence   1325 AA;


  Query Match             15.1%;  Score 161;  DB 20;  Length 1325;
  Best Local Similarity   23.1%;  Pred. No. 8.4e-05;
  Matches   57;  Conservative   48;  Mismatches   90;  Indels   52;  Gaps    7;

Qy      13 QEEENVLDREFLKNELD------NVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSL 66
           :|  ::|:    | | |       |:| | :|::| |  : ::  |: :||:    | ||
Db     966 rehnsiletalakreadlvqlnlqvqavlqrkeeedrqmkqlvqalqvslekekmevnsl 1025

Qy      67 QQALGKA---------------------------EMLCSTLKKQMKYLEQQ----QDET 94
           :: :  |                           | |  ||: ::  |: |      |
Db   1026 keqmaaarieaghnrrhfkaatlelsevkkelqakehlvqtlqaevdelqiqdgkhsqei 1085

Qy      95 KQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYE 154
           | | |    |::::       ||| :|   :| :     |   :| |       ::| :
Db   1086 aqfqtelaeartqlq-------llqkkl---deqmsqqptgsqemedlkweldqkereiq 1135

Qy     155 NLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKK 214
           :||:    : :     :|:|  ::  |||: |||:  : :|   |||      ::  ||
Db   1136 slkqqldlteqqg---kkelegtqqtlqtikselemvqedlsetqkdkfmlqakvselkn 1192

Qy     215 KL-TMLQ 220
           : |:||
Db   1193 nmktllq 1199


RESULT  12
AAR72826
ID   AAR72826 standard; Protein; 2482 AA.
XX
AC   AAR72826;
XX
DT   27-FEB-1996  (first entry)
XX
DE   Human mitosin.
XX
KW   Cell cycle; M phase; mitosin; retinoblastome; mitosis; cell growth;
KW   inhibition.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Region          1480..1659
FT                   /label= internal_repeat
FT   Region          1660..1839
FT                   /label= internal_repeat
XX
PN   WO9511309-A2.
XX
PD   27-APR-1995.
XX
PF   24-OCT-1994;   94WO-US12162.
XX
PR   22-OCT-1993;   93US-0141239.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Lee W,  Zhu X;
XX
DR   WPI; 1995-170229/22.
DR   N-PSDB; AAQ86851.
XX
PT   Purified mammalian protein mitosin and agents that bind it and
PT   inhibit its action - used to promote cell growth or to inhibit cell
PT   division and/or proliferation
XX
PS   Claim 4; Fig 8B; 61pp; English.
XX
CC   AAR72829 is human mitosin. Mitosin is involved in the regulation of
CC   the mammalian mitotic cell cycle. Mitosin as with E2F-1 (see AAR72824)
CC   interacts with the retinoblastoma protein (the retinoblastoma tumour
CC   suppressor gene product). Mitosin is first synthesised at the G1/S
CC   boundary, it is then phosphorylated from S through M phase, and during
CC   mitosis, is closely associated with the centromeres/kinetochores at the
CC   mitotic spindle poles. Mitosin is necessary for a eukaryotic cell to
CC   enter the M phase of the mitotic cell cycle and its degradation is
CC   necessary for a cell to advance on to the next stage. Mitosin is thus
CC   useful for controlling cell growth as overexpression of mitosin prevents
CC   a cell from exiting the M phase.
CC   An anti-mitosin antibody, antibody fragment or a phosphorylated mitosin
CC   mutein ( or nucleic acid encoding it) can also be used to inhibit cell
CC   division which is particularly useful for the study of the cell cycle.
CC   A further use is to control hyperproliferative cells, and so control
CC   diseases such as psoriasis and breast cancer. It can also be used to
CC   block gametogenesis of an immature gamete.
XX
SQ   Sequence   2482 AA;


  Query Match             14.6%;  Score 156;  DB 16;  Length 2482;
  Best Local Similarity   23.6%;  Pred. No. 0.00047;
  Matches   57;  Conservative   55;  Mismatches   90;  Indels   40;  Gaps    7;

Qy      19 LDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKA-EMLC 77
           ||   |::| :|:  |: :|  :  :   :: : :  |||:    : :::    | |||
Db   1571 ldlvtlrsekenltkqiqekqgqlseldkllssfkslleekeqaeiqikeesktavemlq 1630

Qy      78 STLKKQ-------------MKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 120
           : ||:               ||  ||  |    |  | :    :||:::  |: :| :
Db   1631 nqlkelneavaalcgdqeimkateqsldppieeehqlrnsieklrarleadekkqlcvlq 1690

Qy     121 QLPE-----------VEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADK 169
           || |           || : |:: : ::  |  |:   : | | | ||   :   :
Db   1691 qlkesehhadllkgrvenlereleiartnqehaaleaenskgevetlkakiegmtqslrg 1750

Qy     170 LRKDLFSSRSKLQTVYSELDQ-----AKLEL--KSAQKDLQSADKEIMSLKKK----LTM 218
           |  |: : ||: : : :|| :     ::||:   | :  ||  ::| : :|:|    : |
Db   1751 leldvvtirsekenltnelqkeqeriseleiinssfenilqekeqekvqmkeksstamem 1810

Qy     219 LQ 220
           ||
Db   1811 lq 1812


RESULT  13
AAW23996
ID   AAW23996 standard; Protein; 2482 AA.
XX
AC   AAW23996;
XX
DT   28-MAY-1998  (first entry)
XX
DE   Human mitosin amino acid sequence.
XX
KW   Mitosin; phosphoprotein; mitotic cell cycle; antibody; analogue;
KW   inhibition; M phase; Antagonist; hyperproliferative cell; cancer;
```

```
KW   leukaemia; lymphoma; chromosome segregation.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          258..280
FT                   /note= "leucine heptad repaet"
FT   Domain          340..362
FT   Domain          564..593
FT   Domain          1387..1443
FT   Domain          1885..1962
FT   Domain          2146..2188
FT   Domain          2165..2187
FT                   /note= "leucine heptad repeat"
FT   Misc-difference 2188
FT   Misc-difference 2300
FT                   /label= "Bipartite targeting motif"
FT                   /note= "Optionally C or G"
FT   Misc-difference 2189
FT   Misc-difference 2301
FT   Misc-difference 2303
FT                   /label= "Bipartite targeting motif"
FT                   /note= "optinally A or T"
XX
PN   US5710022-A.
XX
PD   20-JAN-1998.
XX
PF   24-OCT-1994;   94US-0328254.
XX
PR   24-OCT-1994;   94US-0328254.
PR   22-OCT-1993;   93US-0141239.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Lee W,  Zhu X;
XX
DR   WPI; 1998-109817/10.
DR   N-PSDB; AAV09076.
XX
PT   New isolated mitosin protein and gene - useful for, e.g. developing
PT   products for therapy and diagnosis of hyper-proliferative disorders
PT   such as cancers or psoriasis
XX
PS   Claim 1; Column 40-52; 43pp; English.
XX
CC   This is the amino acid sequence for mitosin, a phosphoprotein
CC   necessary for the cell to ente mitosis.  The protein's degradation is
CC   also necessary for the cell to advance into the next stages of mitosis.
CC   The mitosin protein, can be used to control the growth of cells.  An
CC   anti-mitosin antibody, a mutant or a non-functional analogue of mitosin
CC   can inhibit the mitotic cell cycle by preventing the cells from entering
CC   the M phase, and over expression of mitosin or its functional
CC   equivalent, would inhibit the cycle by preventing cells from leaving the
CC   M phase. Antagonists to this protein can be used to control
CC   hyperproliferative cells in, (e.g. thyroid hyperplasia, Grave's disease,
CC   psoriasis, benign prostatic hypertrophy, Li-Fraumeni syndrome, breast
CC   cancer, sarcomas and other neoplasms, bladder cancer, colon cancer,
CC   lung cancer and various leukaemias and lymphomas).  Reintroduction or
CC   supplementation of lost mitosin function by introduction of the protein
CC   or nucleic acid encoding the protein into a cell can restore defective
CC   chromosome segregation, which is a marker of progressing malignancy.
CC   Malignant proliferation of cells can then be halted.  The protein
CC   can also be used for the detection and diagnosis of hyperproliferative
CC   cells.
XX
SQ   Sequence   2482 AA;


  Query Match            14.6%;  Score 156;  DB 19;  Length 2482;
  Best Local Similarity  23.6%;  Pred. No. 0.00047;
  Matches   57;  Conservative   55;  Mismatches   90;  Indels   40;  Gaps    7;

Qy      19 LDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKA-EMLC 77
           ||   |::| :|:  |: :|  :  :   :: : :  |||:    : :::    | |||
Db    1571 ldlvtlrsekenltkqiqekqgqlseldkllssfkslleekeqaeiqikeesktavemlq 1630

Qy      78 STLKKQ-------------MKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 120
           : ||:               ||  ||  |    |  | :    :||:::  |: :| :
Db    1631 nqlkelneavaalcgdqeimkateqsldppieeehqlrnsieklrarleadekkqlcvlq 1690

Qy     121 QLPE-----------VEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADK 169
           || |           || : |:: : ::  |  |:   : | | | ||   :   :
Db    1691 qlkesehhadllkgrvenlereleiartnqehaaleaenskgevetlkakiegmtqslrg 1750

Qy     170 LRKDLFSSRSKLQTVYSELDQ-----AKLEL--KSAQKDLQSADKEIMSLKKK----LTM 218
           |  |: : ||: : : :|| :     ::|||:   | :  ||  ::| : :|:|    : |
Db    1751 leldvvtirsekenltnelqkeqeriseleiinssfenilqekeqekvqmkeksstamem 1810

Qy     219 LQ 220
           ||
Db    1811 lq 1812


RESULT  14
AAR99795
ID   AAR99795 standard; Protein; 3248 AA.
XX
AC   AAR99795;
XX
DT   08-OCT-1996  (first entry)
XX
DE   Kinetochore protein CENP-F.
XX
KW   Kinetochore protein; CENP-F; cell cycle; cancer; diagnosis;
KW   autoimmune antibody.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1..200
FT                   /label= Extended_coiled_structure
FT   Domain          280..1350
FT                   /label= Extended_coiled_structure
FT   Domain          1380..1610
FT                   /label= Globular_domain
FT                   /note= "globular domain consists of 2 direct
FT                           repeats of 95 amino acids"
FT   Domain          1620..1750
FT                   /label= Extended_coiled_structure
FT   Domain          1850..2990
FT                   /label= Extended_coiled_structure
FT   Domain          3048..3248
FT                   /label= C-terminal_domain
FT                   /note= "the C-terminal domain is predicted to
FT                           form a proline-rich (10.6%) highly
FT                           basic (pI 10) globular domain"
XX
PN   WO9617867-A1.
XX
PD   13-JUN-1996.
XX
PF   08-DEC-1995;   95WO-US16216.
XX
PR   09-DEC-1994;   94US-0353700.
XX
PA   (FOXC-) FOX CHASE CANCER CENT.
PA   (UYTE-) UNIV TECHNOLOGIES INT INC.
XX
PI   Rattner JB,  Yen TJ;
XX
DR   WPI; 1996-287116/29.
DR   N-PSDB; AAT34578.
XX
PT   DNA encoding kinetochore protein - used as a marker for the G2 and M
PT   phases of a cell cycle, partic. for detection of malignant diseases
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XX
PS   Claim 12; Page 41-54; 72pp; English.
XX
CC   A 372 kDa human kinetochore protein, CENP-F (AAR99795), is detected
CC   by immunofluorescence microscopy only during the G2 and M phases
CC   of a cell cycle.  It is the product of a cDNA clone (AAT34578)
CC   isolated from a breast carcinoma cDNA library.  Recombinant CENP-F
CC   can be produced by expression in prokaryotic or eukaryotic host
CC   cells.  CENP-F can be used to detect autoimmune antibodies to
CC   the protein, which may provide an early diagnosis for the onset
CC   of various malignant diseases.  Use of CENP-F as a cell cycle
CC   marker allows the specific detection of G2 and M phase cells.
XX
SQ   Sequence   3248 AA;


  Query Match             14.6%;  Score 156;  DB 17;  Length 3248;
  Best Local Similarity   23.6%;  Pred. No. 0.00066;
  Matches   57;  Conservative   55;  Mismatches   90;  Indels   40;  Gaps    7;

Qy      19 LDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKA-EMLC 77
           ||   |::| :|:  |: :|  :  :   :: : :  |||:    : :::    | |||
Db    2299 ldlvtlrsekenltkqiqekqgqlseldkllssfkslleekeqaeiqikeesktavemlq 2358

Qy      78 STLKKQ------------MKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 120
           : ||:              ||  ||  |    |  | :    :||:::: |: :| :
Db    2359 nqlkelneavaalcgdqeimkateqsldppieeehqlrnsieklrarleadekkqlcvlq 2418

Qy     121 QLPE----------VEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADK 169
           || |           || : |:: : ::  |  |:   : | | | ||   :   :
Db    2419 qlkesehhadllkgrvenlereleiartnqehaaleaenskgevetlkakiegmtqslrg 2478

Qy     170 LRKDLFSSRSKLQTVYSELDQ--.---AKLEL--KSAQKDLQSADKEIMSLKKK----LTM 218
           |  |: : ||: : : :|| :     ::||:   | :  ||  ::| : :|:|    : |
Db    2479 leldvvtirsekenltnelqkeqeriseleiinssfenilqekeqekvqmkeksstamem 2538

Qy     219 LQ 220
           ||
Db    2539 lq 2540


RESULT  15
ABB61289
ID   ABB61289 standard; Protein; 455 AA.
XX
AC   ABB61289;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 10659.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL05392.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 10659; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   455 AA;


  Query Match             14.5%;  Score 155;  DB 22;  Length 455;
  Best Local Similarity   23.0%;  Pred. No. 7e-05;
  Matches   57;  Conservative   58;  Mismatches   93;  Indels   40;  Gaps    6;

Qy       4 INKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATV 63
           | :::|:||  : : :|   |: :|||    :   :||:   :  |  |::| ::   |:
Db      55 ifrvyfnlanldvshidvgslqeqldnamlsmkmvekernkdeqqirdlketqkkclkti 114

Qy      64 VSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLP 123
             |:| : | : | |:  :|:  |:          ::|   |:|::::|| |  :| :
Db     115 agleqkvqkkdflissyveqigvlksdahvvdglrkenktlksqiqsmegisailaagsa 174

Qy     124 EVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLK----EARKASGEVADKLRKDLFSSR- 178
           : : ::::    ::    || :  :||:|    :    | |     | : |||::   |
Db     175 dadrllkn----eadphvlanwvstlkrelrqceskktelrnvvkvvqndlrkeielkry 230

Qy     179 ------------------SKLQTVYSELD------QAKL---ELKSAQKDLQSA----DK 207
                            |||:   | |:      | ||   | |:|  |  :|    :
Db     231 ahnipnvvfiidmcsfdcskleervshlesdlyqaqeklqafenktayldspnascglns 290

Qy     208 EIMSLKKK 215
             |::||::
Db     291 nilalkre 298


RESULT  16
ABG05140
ID   ABG05140 standard; Protein; 808 AA.
XX
AC   ABG05140;
XX
DT   13-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #5131.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
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```
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS69327.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity -
XX
PS   Claim 20; SEQ ID No 35499; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note: The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   808 AA;


  Query Match             14.5%;  Score 154.5;  DB 22;  Length 808;
  Best Local Similarity   21.9%;  Pred. No. 0.00016;
  Matches   51;  Conservative   58;  Mismatches   91;  Indels   33;  Gaps    6;

Qy      10 DLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQA 69
           |: : :|  ::   |: :::|:: ||  |||:  : :  : :|:      :  : :|::|
Db     383 dmlevkerkin--vlqkkienlqeqlrdkdkqltnlkdrvkslqtdssntdtalatleea 440

Qy      70 LGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMI 129
           | : | :   ||      ||:: : ::  ||    | : | :::    ||::| | |  :
Db     441 lsekeriierlk------eqrerddrerleeiesfrkenkdlkekvnalqaeltekessl 494

Qy     130 RDMGVGQS-----------------AVEQLAVYCVSLK---KEYENLKEARKASGEVAD 168
            |:   |                  |:||    |  |:   |:  |:::  : : | ||
Db     495 idlkehasslasaglkrdsklksleiaieqkkeecskleaqlkkahnieddsrmnpefad 554

Qy     169 KLR---KDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTM 218
           :::   |:    | :     :|:|:    ||  : :    ||:|  | : ||:
Db     555 qikqldkeasyyrdecgkaqaevdrlleilkeveneknddkdkkiael-esltl 606


RESULT  17
AAB96721
ID   AAB96721 standard; Protein; 1177 AA.
XX
AC   AAB96721;
XX
DT   29-OCT-2001  (first entry)
XX
DE   Putative P. abyssi ATPase involved in DNA repair #3.
XX
KW   Hyperthermophilic archaeon; hyperthermophilic protein.
XX
OS   Pyrococcus abyssi.
XX
PN   FR2792651-A1.
XX
PD   27-OCT-2000.
XX
PF   21-APR-1999;   99FR-0005034.
XX
PR   21-APR-1999;   99FR-0005034.
XX
PA   (CNRS ) CNRS CENT NAT RECH SCI.
PA   (IFRE-) IFREMER INST FR RECH EXPL MER.
XX
PI   Forterre P,  Thierry JC,  Prieur D,  Dietrich J,  Lecompte O;
PI   Querellou J,  Weissenbach J,  Saurin W,  Heilig R;
XX
DR   WPI; 2001-126236/14.
XX
PT   New nucleotide sequences isolated from Pyrococcus abyssi encode
PT   proteins useful in industry -
XX
PS   Claim 7; Pages 1483-1487; 1657pp; French.
XX
CC   The present invention relates to the genomic sequence of Pyrococcus
CC   abyssi (see AAF86431 and AAH41223-7) and P. abyssi proteins. P. abyssi is
CC   a hyperthermophilic archaeon, which is isolated from deep-sea
CC   hydrothermal vents. The present sequence is one such P. abyssi protein.
CC   The proteins of the present invention have various potential industrial
CC   uses, since the proteins are stable at very high temperatures, some up to
CC   110 degrees centigrade.
CC   Note: This patent is in the same patent family as WO200065062, which
CC   contains additional sequences as shown in AAB99132-AAB99143,
CC   AAH75903-AAH75920 and AAG66436.
XX
SQ   Sequence   1177 AA;


  Query Match             14.4%;  Score 154;  DB 22;  Length 1177;
  Best Local Similarity   22.9%;  Pred. No. 0.00028;
  Matches   57;  Conservative   61;  Mismatches   87;  Indels   44;  Gaps   10;

Qy       6 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 65
           |   :| | |||:   : |  |   |: || : :||: |:   :| |:: ||     ::
Db     178 kalqelkqaeenlarvdllire---vkkqldklekerndalryld-lkerlerarveli- 232

Qy      66 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEE----AGRLRSKMKTMEQIELLLQS- 120
             ||: : : | :|   : :|: ::| |: :|:    |  :  | : ::::| |::
Db     233 ----lgeikkveseikgnderiekieeeikeieekleeiakeivrkerelkeveelieke 288

Qy     121 ----------QLPEVEEMI----RDMGVGQSAVEQLAVYCVSLKKEYEN-LKEARKASGE 165
                    :: ||   |    |:: | :  :::  :  :  | | :  | |  |: |
Db     289 sseealkitreigevnskinlakrnievakkeldeaqirlikakdelkkvlseiekskga 348

Qy     166 VA----------DKLRKDLFSSRSKLQTVYSELDQ----AKLELKSAQKDLQSADKEIMS 211
           :|          :|: |:|   |:||     |:|:    |: | :  |:|::| | :
Db     349 iarwgkrkeallnki-keleeernklvvklgeidrtfavareefdnvvkelenarkslye 407

Qy     212 LKKKLTMLQ 220
             :  :  |:
Db     408 neadikrle 416


RESULT  18
ABB58673
ID   ABB58673 standard; Protein; 1456 AA.
XX
AC   ABB58673;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 2811.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
```

```
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL02776.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 2811; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1456 AA;


  Query Match             14.4%;  Score 153.5;  DB 22;  Length 1456;
  Best Local Similarity   21.9%;  Pred. No. 0.00039;
  Matches   59;  Conservative   53;  Mismatches   93;  Indels   65;  Gaps    6;

Qy      16 ENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERN---------------- 60
           : | :|  | :||  ::  :  ||::    |  |: | | |:|::
Db     104 qtvqernrltseltelkdhmdikdrkisvlqrkienledllkekdnqvdmararlsamqa 163

Qy      61 ------ATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQ---------------AQE 99
                : ||::|:|  |   : |: |    | :: | :                 |:
Db     164 hhsssegaltsleeaigdkekqmaqlrdqrdraehekqeerdlherevadykiklraaes 223

Qy     100 EAGRLRSKMK----TMEQIELLL---QSQL----PEVEEMIRDMGVGQSAVEQLAVYCVS 148
           |  :|:::::      |::|: |   ||:|     |:|:   :||   :  |
Db     224 eveklqtrleravtererleikleasqselgkskaelekatcemgrssadwestkqriar 283

Qy     149 LKKEYENLKEARKAS-----------------GEVADKLRKDLFSSRSKLQTVYSELDQ 190
           |: | | ||   : |                 | |||   :|  ::::|:   |: ::
Db     284 lelenerlkhdlersqttfgrttmttsqeldraqeradkasaelrrtqaelrvtqsdaer 343

Qy     191 AKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
           |: |  : |: |: :  |:  || ||   |
Db     344 areeaaalqekleksqgevyrlkaklenaq 373


RESULT  19
ABB59948
ID   ABB59948 standard; Protein; 1489 AA.
XX
AC   ABB59948;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 6636.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL04051.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 6636; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1489 AA;


  Query Match             14.3%;  Score 152;  DB 22;  Length 1489;
  Best Local Similarity   26.3%;  Pred. No. 0.00054;
  Matches   67;  Conservative   38;  Mismatches   92;  Indels   58;  Gaps    8;

Qy      13 QEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERN----------A 61
           |||||||    |       :  :|  || | |  |  :  |    |  |          |
Db     310 qeeenvl---llaqtkqaihtelelkdtevrklqeklkqlesqreshnnevkeqfkklqa 366

Qy      62 TVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMK---------- 109
           |   :   |   | | :|||:    :::||  | :|| || |: :: |
Db     367 tkqevdaklmatehllntlkesya-ikeqqvvtleaqleairveneqkvkdlqkqnedrn 425

Qy     110 -----TMEQIELL------LQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKE 158
                : ||:: |       :|||   ::::  :   |:| ||       ||   | | :
Db     426 tqasdsseqlkklqaavqdaesqllskdqlleslrseqaakeq------qlkhlkeqlgk 479

Qy     159 ARKASGEVADKLRKDLFSSRS----------KLQTVYSELDQAKLE----LKSAQKDLQS 204
           :: :    ||||::  || |           |||    | :   |     | | : | ::
Db     480 lkqenenyldklrenkkssdsqtneaqdqqkklqaakdeaeskllateellhslrndyka 539

Qy     205 ADKEIMSLKKKLTML 219
           ::::  |: ||  |
Db     540 qeekvalledklktl 554


RESULT  20
ABB62094
ID   ABB62094 standard; Protein; 1975 AA.
XX
AC   ABB62094;
XX
DT   26-MAR-2002  (first entry)
XX
```

```
DE   Drosophila melanogaster polypeptide SEQ ID NO 13074.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL06197.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 13074; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1975 AA;
```

```
  Query Match             14.3%;  Score 152;  DB 22;  Length 1975;
  Best Local Similarity   24.0%;  Pred. No. 0.00077;
  Matches   53;  Conservative   49;  Mismatches   93;  Indels   26;  Gaps    5;

Qy      24 LKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKAEM-LCST--- 79
           |:  | |:: : |  : :::     |  | : |: ||     |:: | : || | :|
Db    1470 lqamlrnlqeeksnletdrkmkisaiqaleeklkhrndecqmlrerlaqtemqlaatsee 1529

Qy      80 -------LKKQMKYLEQQQDETKQAQEEAGRLRSKMKTME----------QIELLLQSQ 121
                 |:|  :   :  :| :| |||  ::  :   :|           :::: || :
Db    1530 ngqneerleksrqqcskldnekrqlqeelakvegrasklelqrvamegdltrlqmalqek 1589

Qy     122 LPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKL 181
           : :|   :     |: ||   | :||   : |||  : |     :|| :: : : :|
Db    1590 dcsirqmaerlenqnraltqledrctalkstvdqlkerlqksavsetqlrgeiktlqkel 1649

Qy     182 --QTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
             |   |: :: ||:|   || ||:|: |   | ::|   |
Db    1650 seqghcsqanedklkl--vqkslqtaenekrilterldsaq 1688


RESULT  21
ABB71125
ID   ABB71125 standard; Protein; 2067 AA.
XX
AC   ABB71125;
XX
DT   26-MAR-2002  (first entry)
XX
```

```
DE   Drosophila melanogaster polypeptide SEQ ID NO 40167.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL15228.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 40167; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   2067 AA;
```

```
  Query Match             14.3%;  Score 152;  DB 22;  Length 2067;
  Best Local Similarity   23.9%;  Pred. No. 0.00081;
  Matches   62;  Conservative   49;  Mismatches   84;  Indels   64;  Gaps    9;

Qy      11 LAQEEENVLDREFLKNELDNVRAQLSQKDKEK--------RDSQVIIDTLRDTLE----- 57
           | |||  ||  :    ||  || :: :: :||        :: |  :|::: :||
Db    1655 leqeenkvlraql---elsqvrqeidrriqekeeefentrknhqraldsmqasleaeakg 1711

Qy      58 ---------ERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKM 108
                   :  | :  |: ||  |    :  :| :|  :||  : : | ||  | |
Db    1712 kaealrmkkkleadineleialdhankanaeaqknikryqqqlkdiqtaleeeqrardda 1771

Qy     109 KTMEQIEL------LLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKA 162
           :  ||: :       ||::| |   ::     |:   ||       |   :| | |
Db    1772 r--eqlgiserranalqneleesrtlleqadrgrrqaeq------eladaheqlnevsaq 1823

Qy     163 SGEVADKLRKDLFSSRSKLQTVYSELDQ------------------AKL--ELKSAQKD 201
           :  ::   ||      |:|||::|:||:                  |:|  ||:: |
Db    1824 nasisaakrk----leselqtlhsdldellneaknseekakkamvdaarladelraeqdh 1879

Qy     202 LQSADKEIMSLKKKLTMLQ 220
            |: :|   :|::::  ||
Db    1880 aqtqeklrkaleqqikelq 1898


RESULT  22
ABG03671
ID   ABG03671 standard; Protein; 463 AA.
XX
```

```
AC   ABG03671;
XX
DT   13-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #3662.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS67858.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity  -
XX
PS   Claim 20; SEQ ID No 34030; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note: The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   463 AA;
```

```
  Query Match           14.2%;  Score 151.5;  DB 22;  Length 463;
  Best Local Similarity   24.7%;  Pred. No. 0.00014;
  Matches   61;  Conservative   43;  Mismatches  102;  Indels   41;  Gaps    7;

Qy      12 AQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVII-DTLRDTLEERNATVVSLQQAL 70
           || :   :| | |: : ||  |    :    ||   ::         ||:  : |||: |
Db     155 aqwqrfhidtenlreqkdneiasardelhsardemwlvhqaaakvaserdtdiaslqeel 214

Qy      71 GK--AEM-----LCSTLKKQMKYL------------EQQQDETKQAQEEAGRLRSKMKTM 111
             |  ||:       |  :|::  |             :||::|  : | |  :|| :   :
Db     215 kkvraelerwrkaaseyekevtslqnsfqlrcqqcedqqreeasrlqgeleklrkewnal 274

Qy     112 E-------QIELLLQSQLPEVE----------EMIRDMGVGQSAVEQLAVYCVSLKKEY 153
           |       :  :|| |:|   |          |:  |: : | : ::|     |||:::
Db     275 etechslkrenvllsselqrqekelhnsqkqsleltsdlsilqmsrkelenqvgslkeqh 334

Qy     154 ENLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLK 213
                 |     |:   ||:     | ||| |||   ||: :  ::: ||   |:   |
Db     335 lrdsadlktllskaenqakdvqkeyektqtvlsel---klkfemteqekqsitdelkqck 391

Qy     214 KKLTMLQ 220
             | :|:
Db     392 nnlkllr 398
```

```
RESULT  23
AAB08316
ID   AAB08316 standard; Protein; 753 AA.
XX
AC   AAB08316;
XX
DT   04-DEC-2000  (first entry)
XX
DE   A human M-phase phosphoprotein-1 polypeptide.
XX
KW   Human; M-phase phosphoprotein-1; MPP1; mitotic cell; interphase;
KW   idiopathic ataxia; antigen; autoantibody.
XX
OS   Homo sapiens.
XX
PN   CA2290711-A1.
XX
PD   09-JUN-2000.
XX
PF   09-DEC-1999;   99CA-2290711.
XX
PR   09-DEC-1998;   98US-0111633.
XX
PA   (UYTE-) UNIV TECHNOLOGIES INT INC.
XX
PI   Fritzler MJ;
XX
DR   WPI; 2000-565786/53.
DR   N-PSDB; AAA63952.
XX
PT   Detecting presence of an antibody associated with ataxia in a
PT   biological sample for diagnosing and treating ataxia, involves
PT   contacting the sample with a peptide comprising a sequence identical to
PT   M-phase phosphoprotein-1  -
XX
PS   Claim 35; Page 58-60; 72pp; English.
XX
CC   The present sequence represents a human M-phase phosphoprotein-1 (MPP1)
CC   polypeptide. MPP1 is strongly expressed in mitotic cells, and is
CC   synthesised during interphase of the cell cycle. A subset of idiopathic
CC   ataxia patients have autoantibodies to the antigen MPP1, and detection
CC   of these autoantibodies is useful in classifying and identifying the
CC   type of ataxia experienced by the patient. The specification describes
CC   a method for detecting the presence of autoantibodies to MPP1 a
CC   biological sample from a patient diagnosed with idiopathic ataxia.
CC   The detection method is useful for diagnosing and treating ataxia.
XX
SQ   Sequence   753 AA;
```

```
  Query Match           14.2%;  Score 151.5;  DB 21;  Length 753;
  Best Local Similarity   21.3%;  Pred. No. 0.00026;
  Matches   50;  Conservative   62;  Mismatches   84;  Indels   39;  Gaps    6;

Qy      22 EFLKNELDNVRAQL-SQKD-----KEK---------RDSQVIIDTLRDTLEERNAT---- 62
           | |: ::: ::|::   ||     |||          :: : :|  |:: |:|:| |
Db      12 eeleqqieklqaevkgykdennrlkekehknqddllkeketliqqlkeelqeknvtldvq 71

Qy      63 ---VVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQ 119
              ||  ::|| :     :  | ::| ||   :  |  :  : :|   :   | | | |:
Db      72 iqhvvegkralseltqgvtcykakikeletiletqkvershsakleqdilekesiilkle 131
```

```
Qy    120 SQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENL--------------KEARKASGE 165
          | | :| ::|        : | |  : ||:|   |              :|  : : :
Db    132 rnlkefqehlqd---svkntkdlnvkelklkeeitqltnnlqdmkhllqlkeeeeetnrq 188

Qy    166 VADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
          :||:::| :| :: | : ::| : : :    :: |  | |:|  ::|::::::
Db    189 eteklkeelsassartqnlkadlqrkeedyadlkekltdakkqikqvqkevsvmr 243


RESULT 24
AAM38681
ID   AAM38681 standard; Protein; 1780 AA.
XX
AC   AAM38681;
XX
DT   22-OCT-2001  (first entry)
XX
DE   Human polypeptide SEQ ID NO 1826.
XX
KW   Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW   peripheral nervous system; neuropathy; central nervous system; CNS;
KW   Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW   amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW   chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW   leukaemia.
XX
OS   Homo sapiens.
XX
PN   WO200153312-A1.
XX
PD   26-JUL-2001.
XX
PF   26-DEC-2000; 2000WO-US34263.
XX
PR   21-JAN-2000; 2000US-0488725.
PR   25-APR-2000; 2000US-0552317.
PR   09-JUL-2000; 2000US-0598042.
PR   19-JUL-2000; 2000US-0620312.
PR   03-AUG-2000; 2000US-0653450.
PR   14-SEP-2000; 2000US-0662191.
PR   19-OCT-2000; 2000US-0693036.
PR   29-NOV-2000; 2000US-0727344.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Asundi V,  Chen R,  Ma Y,  Qian XB,  Ren F,  Wang D;
PI   Wang J,  Wang Z,  Wehrman T,  Xu C,  Xue AJ,  Yang Y,  Zhang J;
PI   Zhao QA,  Zhou P,  Goodrich R,  Drmanac RT;
XX
DR   WPI; 2001-442253/47.
DR   N-PSDB; AAI57837.
XX
PT   Novel nucleic acids and polypeptides, useful for treating disorders
PT   such as central nervous system injuries -
XX
PS   Example 3; SEQ ID NO 1826; 10078pp; English.
XX
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   1780 AA;


  Query Match             14.2%;  Score 151.5;  DB 22;  Length 1780;
  Best Local Similarity   21.3%;  Pred. No. 0.00074;
  Matches   50;  Conservative   62;  Mismatches   84;  Indels   39;  Gaps    6;

Qy     22 EFLKNELDNVRAQL-SQKD-----KEK---------RDSQVIIDTLRDTLEERNAT---- 62
          | |: ::: ::|::   ||      |||         :: : :|  |:: |:|:| |
Db   1039 eeleqqieklqaevkgykdennrlkekehknqddllkeketliqqlkeelqeknvtldvq 1098

Qy     63 ---VVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQ 119
             ||  ::|| :     :  | ::| ||   :  |  :  : :|   :   | | | |:
Db   1099 iqhvvegkralseltqgvtcykakikeletiletqkvershsakleqdilekesiilkle 1158

Qy    120 SQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENL--------------KEARKASGE 165
          | | :| ::|        : | |  : ||:|   |              :|  : : :
Db   1159 rnlkefqehlqd---svkntkdlnvkelklkeeitqltnnlqdmkhllqlkeeeeetnrq 1215

Qy    166 VADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
          :||:::| :| :: | : ::| : : :    :: |  | |:|  ::|::::::
Db   1216 eteklkeelsassartqnlkadlqrkeedyadlkekltdakkqikqvqkevsvmr 1270


RESULT 25
AAM40467
ID   AAM40467 standard; Protein; 1788 AA.
XX
AC   AAM40467;
XX
DT   22-OCT-2001  (first entry)
XX
DE   Human polypeptide SEQ ID NO 5398.
XX
KW   Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW   peripheral nervous system; neuropathy; central nervous system; CNS;
KW   Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW   amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW   chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW   leukaemia.
XX
OS   Homo sapiens.
XX
PN   WO200153312-A1.
XX
PD   26-JUL-2001.
XX
PF   26-DEC-2000; 2000WO-US34263.
XX
PR   21-JAN-2000; 2000US-0488725.
PR   25-APR-2000; 2000US-0552317.
PR   09-JUL-2000; 2000US-0598042.
PR   19-JUL-2000; 2000US-0620312.
PR   03-AUG-2000; 2000US-0653450.
PR   14-SEP-2000; 2000US-0662191.
PR   19-OCT-2000; 2000US-0693036.
PR   29-NOV-2000; 2000US-0727344.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Asundi V,  Chen R,  Ma Y,  Qian XB,  Ren F,  Wang D;
PI   Wang J,  Wang Z,  Wehrman T,  Xu C,  Xue AJ,  Yang Y,  Zhang J;
PI   Zhao QA,  Zhou P,  Goodrich R,  Drmanac RT;
XX
DR   WPI; 2001-442253/47.
DR   N-PSDB; AAI59623.
XX
PT   Novel nucleic acids and polypeptides, useful for treating disorders
PT   such as central nervous system injuries -
XX
PS   Example 2; SEQ ID NO 5398; 10078pp; English.
XX
```

```
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   1788 AA;


  Query Match            14.2%;  Score 151.5;  DB 22;  Length 1788;
  Best Local Similarity  21.3%;  Pred. No. 0.00075;
  Matches   50;  Conservative   62;  Mismatches   84;  Indels   39;  Gaps    6;

Qy      22 EFLKNELDNVRAQL-SQKD-----KEK---------RDSQVIIDTLRDTLEERNAT---- 62
           | |: ::: ::|::   ||     |||          :: : :|  |:: |:|:| |
Db    1047 eeleqqieklqaevkgykdennrlkekehknqddllkeketliqqlkeelqeknvtldvq 1106

Qy      63 ---VVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQ 119
             ||  ::|| :     :  | ::| ||   :  |  :  : :|   :   | | | |:
Db    1107 iqhvvegkralseltqgvtcykakikeletiletqkvershsakleqdilekesiilkle 1166

Qy     120 SQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENL-------------KEARKASGE 165
           | | :| ::|       : | |  : ||:|   |              :|  : : :
Db    1167 rnlkefqehlqd---svkntkdlnvkelklkeeitqltnnlqdmkhllqlkeeeeetnrq 1223

Qy     166 VADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
             :||:::| :| :: | : ::| : : :    :: |  | |:|  ::|::::::
Db    1224 eteklkeelsassartqnlnadlqrkeedyadlkekltdakkqikqvqkevsvmr 1278


RESULT  26
AAW63043
ID   AAW63043 standard; Protein; 561 AA.
XX
AC   AAW63043;
XX
DT   26-OCT-1998  (first entry)
XX
DE   Streptococcus uberis bovine lactoferrin binding protein.
XX
KW   Bovine lactoferrin binding protein; LBP; mastitis; vaccine;
KW   diagnosis.
XX
OS   Streptococcus uberis strain su-1 (ATCC 9927).
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..51
FT                   /label= Sig_peptide
FT                   /note= "alternative translation start site at
FT                         Met-11"
FT   Protein         52..561
FT                   /label= Mat_protein
FT   Region          148..199
FT                   /note= "central repeated amino acid sequence A1"
FT   Region          200..212
FT                   /note= "central repeated amino acid sequence B1"
FT   Region          213..271
FT                   /note= "central repeated amino acid sequence C1"
FT   Region          282..325
FT                   /note= "central repeated amino acid sequence A2"
FT   Region          326..339
FT                   /note= "central repeated amino acid sequence B2"
FT   Region          340..397
FT                   /note= "central repeated amino acid sequence C2"
FT   Peptide         525..530
FT                   /note= "surface anchor motif"
XX
PN   WO9821231-A2.
XX
PD   22-MAY-1998.
XX
PF   14-NOV-1997;   97WO-CA00867.
XX
PR   14-NOV-1996;   96US-0031117.
XX
PA   (UYSA-) UNIV SASKATCHEWAN.
XX
PI   Jiang M,  Maclachlan PR,  Potter AA;
XX
DR   WPI; 1998-297860/26.
DR   N-PSDB; AAV42601.
XX
PT   Immunogenic Streptococcus uberis protein(s) that bind bovine
PT   lactoferrin - associated regulatory protein, useful in vaccines for
PT   treatment and prevention of mastitis
XX
PS   Claim 2; Fig 2A-C; 105pp; English.
XX
CC   This is the bovine lactoferrin binding protein (LBP) of
CC   Streptococcus uberis su-1.  Its amino acid sequence was deduced
CC   from the novel isolated lbp gene (see AAV42601).   The LBP is
CC   lactoferrin species-specific; human lactoferrin does not
CC   effectively block binding of bovine lactoferrin.  The invention
CC   provides recombinant vectors, transformed host cells and methods of
CC   producing recombinant bovine LBP of S. uberis.  The bovine LBP,
CC   immunogenic fragments and/or chimeric proteins can be used, either
CC   alone or in combination with other antigens, in novel subunit
CC   vaccines for the prevention and treatment of S. uberis infections,
CC   particularly mastitis, as well as in diagnostic methods for
CC   determining the presence of S. uberis infections.
XX
SQ   Sequence   561 AA;


  Query Match            14.2%;  Score 151;  DB 19;  Length 561;
  Best Local Similarity  23.1%;  Pred. No. 0.0002;
  Matches   53;  Conservative   53;  Mismatches   97;  Indels   26;  Gaps    7;

Qy      10 DLAQEEENVLDREFLKN------ELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATV 63
           | :::|   | :|| ::      || :    | : :|   | :     |:: ||
Db     250 dasrkehealakefaesqkgyekeladkhtalgeaekrnadleagnkelkenlemaegis 309

Qy      64 VSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLP 123
             ||: : |||     |  |::  ::: :  |    |: :  :|:              ::|
Db     310 ddlqkkvmkaeqemkelsaqleeakeeletekaklaesekenaklteerdaakkeaekvp 369

Qy     124 EVEE----MIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKA-SGEVADKLRKD----- 173
           |:||    :: ::   :   |:|      |:|::| :|  ::|   |:| ||::|
Db     370 eleeqveklveeitaakkeaeelqakaeglekdfeavkaekealeaeia-klkedhqkev 428

Qy     174 -----LFSSRSK-LQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKL 216
                | : : | |: :  :||:|| |   | |: | : :|   |: :|
Db     429 dalnalladkekmlknlqdqldkakee---amkneqmsqeekaklqael 474


RESULT  27
AAB21227
ID   AAB21227 standard; Protein; 721 AA.
XX
AC   AAB21227;
XX
DT   09-MAR-2001  (first entry)
XX
DE   Protein encoded by tobacco NtMFP1-1 cDNA.
XX
```

```
KW   Tobacco; MAR-binding filament-like protein 1; MFP1;
KW   matrix attachment region; MAR; anchor protein.
XX
OS   Nicotiana tabacum.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 162
FT                   /note= "encoded by TC"
FT   Misc-difference 672
FT                   /note= "encoded by GAGATT"
XX
PN   WO200061615-A2.
XX
PD   19-OCT-2000.
XX
PF   12-APR-2000; 2000WO-US09723.
XX
PR   12-APR-1999;   99US-0128900.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Harder PA,  Meier I;
XX
DR   WPI; 2000-679464/66.
DR   N-PSDB; AAA95801.
XX
PT   Nucleic acid fragments from tobacco, corn, soybean and rice, encoding
PT   proteins that are homologs to the MAR binding filament-like protein 1
PT   (MFP1), useful for development of novel phenotypes -
XX
PS   Claim 4; Page 45-47; 62pp; English.
XX
CC   The present sequence is encoded by NtMFP1-1 cDNA from tobacco. It is
CC   a homologue of the matrix attachment region (MAR) binding
CC   filament-like protein 1 (MFP1) from tomato. MFP1 has features of a
CC   novel anchor protein that most likely connects chromatin via MAR DNA with
CC   the nuclear envelope and nuclear filament proteins. MFP1 nucleic acids
CC   and proteins may be used to better understand the mechanisms underlying
CC   this process so that the attachment of transgenes to the nuclear matrix
CC   may be used routinely to improve gene expression. They may be used to
CC   study MFP1 expression, leading to the creation of novel developmental
CC   phenotypes that may be beneficial for crop growth and development. In
CC   addition, if the reduction in expression of one of the genes leads to a
CC   growth or developmental defect in the plant, this gene can be used as a
CC   novel herbicide target.
XX
SQ   Sequence   721 AA;


  Query Match             14.2%;  Score 151;  DB 21;  Length 721;
  Best Local Similarity   23.1%;  Pred. No. 0.00027;
  Matches   55;  Conservative   46;  Mismatches   99;  Indels   38;  Gaps    6;

Qy       5 NKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVV 64
Db     400 nvliadltqekenl--rrmldaeleni-------sklklevqv----tqetleksrsdas 446

Qy      65 SLQQALGKAEMLCSTLKKQMKYLEQQQDETK--------QAQEEAGRLRSKMKTMEQIEL 116
Db     447 diaqqlqqsrhlcskleaevsklqmeleetrtslrrnidetkrgaellaaeltttre--- 503

Qy     117 LLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLF- 175
Db     504 llkktneemhtmshelaavtencdnlqtelvdvykkaeraadelkqeknivvtlekeltf 563

Qy     176 ------------SSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
Db     564 leaqitrekesrknleeeleratesldemnrnafalakelelanshisslederevlq 621


RESULT  28
AAM78520
ID   AAM78520 standard; Protein; 990 AA.
XX
AC   AAM78520;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 1182.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK51653.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 3425-3427; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   990 AA;


  Query Match             14.1%;  Score 150;  DB 22;  Length 990;
  Best Local Similarity   24.6%;  Pred. No. 0.00048;
  Matches   60;  Conservative   49;  Mismatches   95;  Indels   40;  Gaps    8;

Qy      13 QEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQ---VIIDTLRDTLEERNATVVSLQQA 69
Db     713 enkelesekeqlkkglellkasfkkterlevsyqgldienqrlqktlensnkkiqqlese 772

Qy      70 LGKAEMLCSTLKKQM-------KYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQL 122
Db     773 lqdlemenqtlqknleelkisskrleqlekenksleqetsqlekdkkqlekenkrlrqqa 832
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Qy    123 PEVEEMIRDMGV--------GQSAVEQLAVY---CVSLKK-EYENLKEARKASGEVAD-- 168
Db    833 eikdttleennvkignlekenktlskeigiykescvrlkelekenkelvkratidiktlv 892

Qy    169 KLRKDLFSSRSKLQTVYSELDQAKLELKS-------AQKDLQSAD---------KEIMSL 212
Db    893 tlredlvseklktqqmnndlekltheleklglnkerllhdeqstddsrykllesklestl 952

Qy    213 KKKL 216
Db    953 kksl 956
```

RESULT 29
AAY15457
ID AAY15457 standard; Protein; 1761 AA.
XX
AC AAY15457;
XX
DT 26-JUL-1999 (first entry)
XX
DE Human laminin beta 4 protein.
XX
KW Laminin 12; alpha 2; beta 1; gamma 3; subunit; nerve regeneration;
KW connective tissue adhesion; tissue repair; wound; nerve growth;
KW laminin beta 4.
XX
OS Homo sapiens.
XX
PN WO9919348-A1.
XX
PD 22-APR-1999.
XX
PF 08-OCT-1998; 98WO-US21391.
XX
PR 10-OCT-1997; 97US-0061609.
XX
PA (GEHO) GEN HOSPITAL CORP.
XX
PI Brunken W, Burgeson RE, Champliaud M, Koch M, Olson P;
XX
DR WPI; 1999-326542/27.
DR N-PSDB; AAX59765.
XX
PT Purified laminin 12 useful for promoting tissue repair and promoting
PT nerve growth
XX
PS Disclosure; Page 59-64; 86pp; English.
XX
CC The specification describes laminin 12 which includes an alpha 2, beta 1
CC and gamma 3 subunit. Laminin is a connective tissue adhesion molecule.
CC Laminin is useful for promoting tissue repair due to wounds
CC and to promote nerve growth or regeneration. The present sequence
CC represents human laminin beta 4.
XX
SQ Sequence 1761 AA;

Query Match 14.0%; Score 149.5; DB 20; Length 1761;
Best Local Similarity 23.8%; Pred. No. 0.0011;
Matches 61; Conservative 49; Mismatches 99; Indels 47; Gaps 9;

```
Qy     12 AQEEENV---LDREF--LKNELDNVRAQL-----------------SQKDKEKRDSQVI 48
Db   1422 aqeaksiirnldkqvrglknqiesiseqaevsknnalqlreklgnirnqsdseeeninlf 1481

Qy     49 IDTLRDTLEERNATVVSLQQALG---------KAEMLCSTLKKQMKYL----EQQQDETK 95
Db   1482 ikkvknfllleenvppediekvangvldihlpipsqnltdelvkiqkhmqlcedyrtdenr 1541

Qy     96 QAQEEAG--RLRSKMKTMEQ---IELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLK 150
Db   1542 sneeadgaqkllvkakaaekaanillnldktlnqlqqaqitqgranstitqltanitkik 1601

Qy    151 K---EYENLKEARKASGEVADK---LRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQS 204
Db   1602 knvlqaenqtremkselelakqrsgledglsllqtklqrhqdhavnakvqaesaqhqags 1661

Qy    205 ADKEIMSLKKKLTMLQ 220
Db   1662 lekefvelkkqyailq 1677
```

RESULT 30
AAB29659
ID AAB29659 standard; Protein; 359 AA.
XX
AC AAB29659;
XX
DT 23-FEB-2001 (first entry)
XX
DE Human membrane-associated protein HUMAP-16.
XX
KW Human membrane-associated protein; HUMAP; transgenic organism;
KW drug screening; cell signalling modulator; agonist; antagonist;
KW cell differentiation modulator; cell proliferation modulator;
KW cell proliferative disorder; cancer; cell differentiation disorder;
KW developmental disorder; cell signalling disorders; endocrine disorder;
KW hyperpituitarism; hypothyroidism; hyperparathyroidism; infection;
KW pancreatic disorder; diabetes mellitus; immunological disorder;
KW hereditary neuropathy; gonadal steroid hormone associated disorder;
KW infertility.
XX
OS Homo sapiens.
XX
PN WO200065054-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-US10884.
XX
PR 23-APR-1999; 99US-0130694.
PR 23-JUN-1999; 99US-0140580.
XX
PA (INCY-) INCYTE GENOMICS INC.
XX
PI Hillman JL, Bandman O, Tang YT, Lal P, Yue H, Reddy R, Azimzai Y;
PI Baughn MR;
XX
DR WPI; 2000-687346/67.
DR N-PSDB; AAC64289.
XX
PT Human membrane-associated protein, useful for diagnosis and treatment
PT of cell signaling, cell differentiation and cell proliferation
PT disorders such as cancer, and for identifying agonists and antagonists
PT -
XX
PS Claim 1; Page 86-87; 99pp; English.
XX
CC The invention relates to 17 human membrane-associated proteins,
CC HUMAP-1 to HUMAP-17 (AAB29644-B29660) and the cDNAs encoding them
CC (AAC64274-C64290). The invention also relates to expression constructs,
CC host cells and transgenic organisms comprising a HUMAP nucleic acid
CC sequence; the recombinant preparation of a HUMAP; methods of screening
CC compounds for their ability to modulate HUMAP activity or expression;
CC and pharmaceutical compositions comprising a HUMAP protein, a HUMAP
CC agonist or HUMAP antagonist. The HUMAPs acts as modulators of cell
CC signalling, differentiation and proliferation. A HUMAP is useful for
CC screening a compound for effectiveness as an agonist or antagonist of
CC HUMAP activity. The protein, or the identified agonist or antagonist is
CC useful for treating a disease or condition associated with decreased or
CC increased expression of functional HUMAP. A HUMAP nucleic acid is useful
CC for screening a compound for its ability to alter expression of that
CC particular HUMAP gene. A wide variety of disease may be treated using
CC compositions of the invention. These diseases include cell proliferative
CC disorders (e.g., actinic keratosis, arteriosclerosis); cancer (e.g.,

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CC   breast, bladder, bone marrow, brain and uterine cancer); cell
CC   differentiation disorders, in particular developmental disorders (e.g.,
CC   renal tubular acidosis, anaemia, Cushing's syndrome, achondroplasia,
CC   epilepsy, and muscular dystrophy); cell signalling disorders, in
CC   particular endocrine disorders such as hypothalamus and pituitary
CC   disorders resulting from lesions such as thrombosis; disorders
CC   associated with hyperpituitarism (e.g., acromegaly); disorders associated
CC   with hypothyroidism (e.g., goitre); hyperparathyroidism; pancreatic
CC   disorders such as type I or type II diabetes mellitus; infections;
CC   immunological disorders; hereditary neuropathies (e.g.,
CC   neurofibromatosis); and disorders associated with gonadal steroid
CC   hormones (e.g., infertility, endometriosis, polycystic ovary syndrome,
CC   osteoporosis, Leydig cell deficiency and gynecomastia). Antibodies which
CC   specifically bind HUMAP may be used for the diagnosis of disorders
CC   associated with the expression of HUMAP, or in assays to monitor patients
CC   being treated with HUMAP or agonists, antagonists or inhibitors of HUMAP.
CC   The present sequence represents a HUMAP of the invention.
XX
SQ   Sequence   359 AA;


  Query Match             14.0%;  Score 149;  DB 21;  Length 359;
  Best Local Similarity   24.3%;  Pred. No. 0.00017;
  Matches   70;  Conservative   51;  Mismatches   91;  Indels   76;  Gaps   11;

Qy       1 RTIINKLFFDLAQEEENVLDREFLKNELDN-------VRAQL------SQKDKEKRDSQV 47
             ||   | |   |  ||   :|:  :|:::        ::|||      ::  :|::||:
Db      48 rtskqkcfelqallee---erkayrnqveestkqiqvlqaqlqrlhidtenlreekdse- 103

Qy      48 IIDTLRDTL-----------------EERNATVVSLQQALGK--AEM-----LCSTLKK 82
            | : || |                  ||:  : |||: | |  ||:       |  :|
Db     104 -itstrdellsardeilllhqaaakvaserdtdiaslqeelkkvraelerwrkaaseyek 162

Qy      83 QMKYL------------EQQQDETKQAQEEAGRLRSKMKTME-------QIELLLQSQLP 123
           ::  |            :||::|  : | |  :|| :   :|       :  :|| |:|
Db     163 eitslqnsfqlrcqqcedqqreeatrlqgeleklrkewnaletechslkrenvllsselq 222

Qy     124 EVE-----------EMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRK 172
             |           |:  |: : | : ::|     |||:::       |     |:   |
Db     223 rqekelhnsqkqsleltsdlsilqmsrkelenqvgslkeqhlrdsadlktllskaenqak 282

Qy     173 DLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQ 220
           |:     | ||| |||   ||: :  ::: ||   |:   |  | :|:
Db     283 dvqkeyektqtvlsel---klkfemteqekqsitdelkqcknnlkllr 327


RESULT  31
AAM78880
ID   AAM78880 standard; Protein; 963 AA.
XX
AC   AAM78880;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 1542.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK52013.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 3856-3858; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   963 AA;


  Query Match             13.9%;  Score 148.5;  DB 22;  Length 963;
  Best Local Similarity   21.5%;  Pred. No. 0.00062;
  Matches   67;  Conservative   55;  Mismatches   94;  Indels   95;  Gaps    9;

Qy       4 INKLFFDLAQEEENV--------------LDREFL----KNELDNVRAQLS--------- 36
           | ||:  |  ::| :                ||:| |    : : ||::|:|:
Db     425 iaklykqlddkdeeinqqsqlveklktqmldqeellastrrdqdnmqaelnrlqaendas 484

Qy      37 ------------------QKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGK----- 72
                             || :|  |     : | | | :::||: |:   | |
Db     485 keevkevlqaleelavnydqksqevedktkeyellsdelnqksatlasidaelqklkemt 544

Qy      73 -------AEMLCSTLK--------------KQMKYLEQQQDETKQAQEEAGRLRSKMKTM 111
                  |||: | ||              || :     :|   |:    :::|::|||
Db     545 nhqkkraaemmasllkdlaeigiavgnndvkqpegtgmideeftvarlyiskmksevktm 604

Qy     112 ----EQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVA 167
               :|:|        ::||  :::   |  : |      || :  :|::: ::   |
Db     605 vkrckqlestqtesnkkmeenekelaacqlrisqheakikslteylqnveqkkrqleesv 664

Qy     168 DKLRKDLFSSR-------------SKLQTVYSELDQA-----KLELKSAQKDLQSADKEI 209
           | | ::|   |              :|:||  :|: ||     :   :: || : |   |:
Db     665 dalseelvqlraqekvhemekehlnkvqta-nevkqaveqqiqshrethqkqisslrdev 723

Qy     210 MSLKKKLTMLQ 220
             :  | :| ||
Db     724 eakaklitdlq 734


RESULT  32
AAM79864
ID   AAM79864 standard; Protein; 979 AA.
XX
AC   AAM79864;
XX
DT   06-NOV-2001  (first entry)
```

```
XX
DE   Human protein SEQ ID NO 3510.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK52997.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 365-366; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   979 AA;


  Query Match             13.9%;  Score 148.5;  DB 22;  Length 979;
  Best Local Similarity   21.5%;  Pred. No. 0.00063;
  Matches   67;  Conservative   55;  Mismatches   94;  Indels   95;  Gaps    9;

Qy       4 INKLFFDLAQEEENV-------------LDREFL----KNELDNVRAQLS--------- 36
           | ||:  |  ::| :              ||:| |    : : ||::|:|:
Db     440 iaklykqlddkdeeinqqsqlveklktqmldqeellastrrdqdnmqaelnrlqaendas 499

Qy      37 ------------------QKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGK----- 72
                            || :|  |     : | | | :::||: |:   | |
Db     500 keevkevlqaleelavnydqksqevedktkeyellsdelnqksatlasidaelqklkemt 559

Qy      73 -------AEMLCSTLK-------------KQMKYLEQQQDETKQAQEEAGRLRSKMKTM 111
                 |||: | ||              || :      :|   |:    :::|::|||
Db     560 nhqkkraaemmasllkdlaeigiavgnndvkqpegtgmideeftvarlyiskmksevktm 619

Qy     112 ----EQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVA 167
               :|:|        ::||  :::   |  : |      || :  :|::: ::   |
Db     620 vkrckqlestqtesnkkmeenekelaacqlrisqheakikslteylqnveqkkrqleesv 679

Qy     168 DKLRKDLFSSR------------SKLQTVYSELDQA-----KLELKSAQKDLQSADKEI 209
           | | ::|   |             :|:||  :|: ||     :   :: || : |   |:
Db     680 dalseelvqlraqekvhemekehlnkvqta-nevkqaveqqiqshrethqkqisslrdev 738

Qy     210 MSLKKKLTMLQ 220
             :  | :| ||
Db     739 eakaklitdlq 749


RESULT  33
ABB59344
ID   ABB59344 standard; Protein; 2056 AA.
XX
AC   ABB59344;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 4824.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL03447.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 4824; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   2056 AA;


  Query Match             13.8%;  Score 147.5;  DB 22;  Length 2056;
  Best Local Similarity   23.7%;  Pred. No. 0.0019;
  Matches   57;  Conservative   49;  Mismatches  102;  Indels   33;  Gaps    7;

Qy       1 RTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKR--DSQVI--------ID 50
           :|:: |    |  |  :      |  || :| :   : |: ::  :||:         |:
Db    1302 ktvlekakgtleaenad------latelrsvnssrqendrrrkqaesqiaelqvklaeie 1355
```

```
Qy      51 TLRDTLEERNATVVSLQQ-------ALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGR 103
           |  |:|:      |||        | :||:  |   |    :| |  | :|  ||  |
Db    1356 rarselqek---ctklqqeaenitnqleeaelkasaavksasnmesqlteaqqlleeetr 1412

Qy     104 ----LRSKMKTMEQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEA 159
               | ||:: :|  :  || || | :|  |:    :  : ::      :||: |   :
Db    1413 qklglssklrqiesekealqeqleeddeakrny---erklaevttqmqeikkkaeedadl 1469

Qy     160 RKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTML 219
           |   |   :| ||: :   ::: : :: |:     |  | :|: |  |: : : |:  |
Db    1470 akeleegkkrlnkdiealerqvkeliaqndrldkskkkiqseledatieleaqrtkvlel 1529

Qy     220 Q 220
           :
Db    1530 e 1530
```

RESULT 34
ABG06505
ID ABG06505 standard; Protein; 2633 AA.
XX
AC ABG06505;
XX
DT 13-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #6496.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS70692.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 20; SEQ ID No 36864; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human
CC diagnostic amino acid sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 2633 AA;

Query Match 13.8%; Score 147.5; DB 22; Length 2633;
Best Local Similarity 25.1%; Pred. No. 0.0026;
Matches 57; Conservative 48; Mismatches 91; Indels 31; Gaps 9;

```
Qy      13 QEEENVLDREFLKNELDNVRAQLSQKDKEK-RDSQVIIDTLRDTLEERNATVVSLQQALG 71
           : :| : : | || : :  :  |   : |  | :|:    | : |||   :|   :  |
Db    1638 etqekmceiehlkeqfetqklnlenietenirltqi----lhenleemr-svtkerddlr 1692

Qy      72 KAEMLCSTLKKQMKYLEQQQDET----KQAQEEAG----RLRSKMKTMEQIELLLQSQLP 123
             |    ||| :   |::   ||     : |||       |:   :|::::  ::  :
Db    1693 sve---etlkverdqlkenlretitrdlekqeelkivhmhlkehqetidklrgivsektn 1749

Qy     124 EVEEMIRDMGVGQSAV--------EQLAVYCVSLKKEYENLKEARKASGEVADKL---RK 172
           |:  | :|:     |:        |:| :  : ||:: | : : |    |  |||   :|
Db    1750 eisnmqkdlehsndalkaqdlkiqeelriahmhlkeqqetidklrgivsektdklsnmqk 1809

Qy     173 DLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK---EIMSLKKKL 216
           || :| :|||    ||   : :| : :||:    |   |:  |||::
Db    1810 dlensnaklqekiqelkanehqlitlkkdvnetqkkvsemeqlkkqi 1856
```

RESULT 35
AAM39097
ID AAM39097 standard; Protein; 2663 AA.
XX
AC AAM39097;
XX
DT 22-OCT-2001 (first entry)
XX
DE Human polypeptide SEQ ID NO 2242.
XX
KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW peripheral nervous system; neuropathy; central nervous system; CNS;
KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW leukaemia.
XX
OS Homo sapiens.
XX
PN WO200153312-A1.
XX
PD 26-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-US34263.
XX
PR 21-JAN-2000; 2000US-0488725.
PR 25-APR-2000; 2000US-0552317.
PR 09-JUL-2000; 2000US-0598042.
PR 19-JUL-2000; 2000US-0620312.
PR 03-AUG-2000; 2000US-0653450.
PR 14-SEP-2000; 2000US-0662191.
PR 19-OCT-2000; 2000US-0693036.
PR 29-NOV-2000; 2000US-0727344.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J;
PI Zhao QA, Zhou P, Goodrich R, Drmanac RT;
XX
DR WPI; 2001-442253/47.
DR N-PSDB; AAI58253.
XX
PT Novel nucleic acids and polypeptides, useful for treating disorders
PT such as central nervous system injuries -

```
XX
PS   Example 4; SEQ ID NO 2242; 10078pp; English.
XX
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   2663 AA;


  Query Match             13.8%;  Score 147.5;  DB 22;  Length 2663;
  Best Local Similarity   25.1%;  Pred. No. 0.0026;
  Matches   57;  Conservative   48;  Mismatches   91;  Indels   31;  Gaps    9;

Qy      13 QEEENVLDREFLKNELDNVRAQLSQKDKEK-RDSQVIIDTLRDTLEERNATVVSLQQALG 71
           : :| : : | || : :  :  |   : |  | :|:    | : |||   :|   :  |
Db    1638 etqekmceiehlkeqfetqklnlenietenirltqi----lhenleemr-svtkerddlr 1692

Qy      72 KAEMLCSTLKKQMKYLEQQQDET----KQAQEEAG----RLRSKMKTMEQIELLLQSQLP 123
             |    ||| :   |::   ||     : |||       |:   :|:::: :: :
Db    1693 sve---etlkverdqlkenlretitrdlekqeelkivhmhlkehqetidklrgivsektn 1749

Qy     124 EVEEMIRDMGVGQSAV--------EQLAVYCVSLKKEYENLKEARKASGEVADKL---RK 172
           |:  | :|:     |:        |:| :  : ||:: | : : |    |  |||   :|
Db    1750 eisnmqkdlehsndalkaqdlkiqeelriahmhlkeqqetidklrgivsektdklsnmqk 1809

Qy     173 DLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK---EIMSLKKKL 216
           || :| :|||    ||   : :| : :||:    |   |:  |||::
Db    1810 dlensnaklqekiqelkanehqlitlkkdvnetqkkvsemeqlkkqi 1856


RESULT  36
AAM40883
ID   AAM40883 standard; Protein; 2688 AA.
XX
AC   AAM40883;
XX
DT   22-OCT-2001  (first entry)
XX
DE   Human polypeptide SEQ ID NO 5814.
XX
KW   Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW   peripheral nervous system; neuropathy; central nervous system; CNS;
KW   Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW   amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW   chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW   leukaemia.
XX
OS   Homo sapiens.
XX
PN   WO200153312-A1.
XX
PD   26-JUL-2001.
XX
PF   26-DEC-2000; 2000WO-US34263.
XX
PR   21-JAN-2000; 2000US-0488725.
PR   25-APR-2000; 2000US-0552317.
PR   09-JUL-2000; 2000US-0598042.
PR   19-JUL-2000; 2000US-0620312.
PR   03-AUG-2000; 2000US-0653450.
PR   14-SEP-2000; 2000US-0662191.
PR   19-OCT-2000; 2000US-0693036.
PR   29-NOV-2000; 2000US-0727344.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Asundi V,  Chen R,  Ma Y,  Qian XB,  Ren F,  Wang D;
PI   Wang J,  Wang Z,  Wehrman T,  Xu C,  Xue AJ,  Yang Y,  Zhang J;
PI   Zhao QA,  Zhou P,  Goodrich R,  Drmanac RT;
XX
DR   WPI; 2001-442253/47.
DR   N-PSDB; AAI60039.
XX
PT   Novel nucleic acids and polypeptides, useful for treating disorders
PT   such as central nervous system injuries -
XX
PS   Example 2; SEQ ID NO 5814; 10078pp; English.
XX
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   2688 AA;


  Query Match             13.8%;  Score 147.5;  DB 22;  Length 2688;
  Best Local Similarity   25.1%;  Pred. No. 0.0027;
  Matches   57;  Conservative   48;  Mismatches   91;  Indels   31;  Gaps    9;

Qy      13 QEEENVLDREFLKNELDNVRAQLSQKDKEK-RDSQVIIDTLRDTLEERNATVVSLQQALG 71
           : :| : : | || : :  :  |   : |  | :|:    | : |||   :|   :  |
Db    1662 etqekmceiehlkeqfetqklnlenietenirltqi----lhenleemr-svtkerddlr 1716

Qy      72 KAEMLCSTLKKQMKYLEQQQDET----KQAQEEAG----RLRSKMKTMEQIELLLQSQLP 123
             |    ||| :   |::   ||     : |||       |:   :|:::: :: :
Db    1717 sve---etlkverdqlkenlretitrdlekqeelkivhmhlkehqetidklrgivsektn 1773

Qy     124 EVEEMIRDMGVGQSAV--------EQLAVYCVSLKKEYENLKEARKASGEVADKL---RK 172
           |:  | :|:     |:        |:| :  : ||:: | : : |    |  |||   :|
Db    1774 eisnmqkdlehsndalkaqdlkiqeelriahmhlkeqqetidklrgivsektdklsnmqk 1833

Qy     173 DLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK---EIMSLKKKL 216
           || :| :|||    ||   : :| : :||:    |   |:  |||::
Db    1834 dlensnaklqekiqelkanehqlitlkkdvnetqkkvsemeqlkkqi 1880


RESULT  37
AAG46982
ID   AAG46982 standard; Protein; 746 AA.
XX
AC   AAG46982;
XX
DT   18-OCT-2000  (first entry)
XX
DE   Arabidopsis thaliana protein fragment SEQ ID NO: 59165.
XX
KW   Protein identification; signal transduction pathway; metabolic pathway;
KW   hybridisation assay; genetic mapping; gene expression control; promoter;
KW   termination sequence.
```

XX
OS Arabidopsis thaliana.
XX
PN EP1033405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-0301439.
XX
PR 25-FEB-1999; 99US-0121825.
PR 05-MAR-1999; 99US-0123180.
PR 09-MAR-1999; 99US-0123548.
PR 23-MAR-1999; 99US-0125788.
PR 25-MAR-1999; 99US-0126264.
PR 29-MAR-1999; 99US-0126785.
PR 01-APR-1999; 99US-0127462.
PR 06-APR-1999; 99US-0128234.
PR 08-APR-1999; 99US-0128714.
PR 16-APR-1999; 99US-0129845.
PR 19-APR-1999; 99US-0130077.
PR 21-APR-1999; 99US-0130449.
PR 23-APR-1999; 99US-0130510.
PR 23-APR-1999; 99US-0130891.
PR 28-APR-1999; 99US-0131449.
PR 30-APR-1999; 99US-0132048.
PR 30-APR-1999; 99US-0132407.
PR 04-MAY-1999; 99US-0132484.
PR 05-MAY-1999; 99US-0132485.
PR 06-MAY-1999; 99US-0132486.
PR 06-MAY-1999; 99US-0132487.
PR 07-MAY-1999; 99US-0132863.
PR 11-MAY-1999; 99US-0134256.
PR 14-MAY-1999; 99US-0134218.
PR 14-MAY-1999; 99US-0134219.
PR 14-MAY-1999; 99US-0134221.
PR 14-MAY-1999; 99US-0134370.
PR 18-MAY-1999; 99US-0134768.
PR 19-MAY-1999; 99US-0134941.
PR 20-MAY-1999; 99US-0135124.
PR 21-MAY-1999; 99US-0135353.
PR 24-MAY-1999; 99US-0135629.
PR 25-MAY-1999; 99US-0136021.
PR 27-MAY-1999; 99US-0136392.
PR 28-MAY-1999; 99US-0136782.
PR 01-JUN-1999; 99US-0137222.
PR 03-JUN-1999; 99US-0137528.
PR 04-JUN-1999; 99US-0137502.
PR 07-JUN-1999; 99US-0137724.
PR 08-JUN-1999; 99US-0138094.
PR 10-JUN-1999; 99US-0138540.
PR 10-JUN-1999; 99US-0138847.
PR 14-JUN-1999; 99US-0139119.
PR 16-JUN-1999; 99US-0139452.
PR 16-JUN-1999; 99US-0139453.
PR 17-JUN-1999; 99US-0139492.
PR 18-JUN-1999; 99US-0139454.
PR 18-JUN-1999; 99US-0139455.
PR 18-JUN-1999; 99US-0139456.
PR 18-JUN-1999; 99US-0139457.
PR 18-JUN-1999; 99US-0139458.
PR 18-JUN-1999; 99US-0139459.
PR 18-JUN-1999; 99US-0139460.
PR 18-JUN-1999; 99US-0139461.
PR 18-JUN-1999; 99US-0139462.
PR 18-JUN-1999; 99US-0139463.
PR 18-JUN-1999; 99US-0139750.
PR 18-JUN-1999; 99US-0139763.
PR 21-JUN-1999; 99US-0139817.
PR 22-JUN-1999; 99US-0139899.
PR 23-JUN-1999; 99US-0140353.
PR 23-JUN-1999; 99US-0140354.
PR 24-JUN-1999; 99US-0140695.
PR 28-JUN-1999; 99US-0140823.
PR 29-JUN-1999; 99US-0140991.
PR 30-JUN-1999; 99US-0141287.
PR 01-JUL-1999; 99US-0141842.
PR 01-JUL-1999; 99US-0142154.
PR 02-JUL-1999; 99US-0142055.
PR 06-JUL-1999; 99US-0142390.
PR 08-JUL-1999; 99US-0142803.
PR 09-JUL-1999; 99US-0142920.
PR 12-JUL-1999; 99US-0142977.
PR 13-JUL-1999; 99US-0143542.
PR 14-JUL-1999; 99US-0143624.
PR 15-JUL-1999; 99US-0144005.
PR 16-JUL-1999; 99US-0144085.
PR 16-JUL-1999; 99US-0144086.
PR 19-JUL-1999; 99US-0144325.
PR 19-JUL-1999; 99US-0144331.
PR 19-JUL-1999; 99US-0144332.
PR 19-JUL-1999; 99US-0144333.
PR 19-JUL-1999; 99US-0144334.
PR 19-JUL-1999; 99US-0144335.
PR 20-JUL-1999; 99US-0144352.
PR 20-JUL-1999; 99US-0144632.
PR 20-JUL-1999; 99US-0144884.
PR 21-JUL-1999; 99US-0144814.
PR 21-JUL-1999; 99US-0145086.
PR 21-JUL-1999; 99US-0145088.
PR 22-JUL-1999; 99US-0145085.
PR 22-JUL-1999; 99US-0145087.
PR 22-JUL-1999; 99US-0145089.
PR 22-JUL-1999; 99US-0145192.
PR 23-JUL-1999; 99US-0145145.
PR 23-JUL-1999; 99US-0145218.
PR 23-JUL-1999; 99US-0145224.
PR 26-JUL-1999; 99US-0145276.
PR 27-JUL-1999; 99US-0145913.
PR 27-JUL-1999; 99US-0145918.
PR 27-JUL-1999; 99US-0145919.
PR 28-JUL-1999; 99US-0145951.
PR 02-AUG-1999; 99US-0146386.
PR 02-AUG-1999; 99US-0146388.
PR 02-AUG-1999; 99US-0146389.
PR 03-AUG-1999; 99US-0147038.
PR 04-AUG-1999; 99US-0147204.
PR 04-AUG-1999; 99US-0147302.
PR 05-AUG-1999; 99US-0147192.
PR 05-AUG-1999; 99US-0147260.
PR 06-AUG-1999; 99US-0147303.
PR 06-AUG-1999; 99US-0147416.
PR 09-AUG-1999; 99US-0147493.
PR 09-AUG-1999; 99US-0147935.
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PR 11-AUG-1999; 99US-0148319.
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PR 13-AUG-1999; 99US-0148684.
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PR 18-AUG-1999; 99US-0149426.
PR 20-AUG-1999; 99US-0149722.
PR 20-AUG-1999; 99US-0149723.
PR 20-AUG-1999; 99US-0149929.
PR 23-AUG-1999; 99US-0149902.
PR 23-AUG-1999; 99US-0149930.
PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
PR 27-AUG-1999; 99US-0151065.
PR 27-AUG-1999; 99US-0151066.
PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.

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PR   13-SEP-1999;   99US-0153758.
PR   15-SEP-1999;   99US-0154018.
PR   16-SEP-1999;   99US-0154039.
PR   20-SEP-1999;   99US-0154779.
PR   22-SEP-1999;   99US-0155139.
PR   23-SEP-1999;   99US-0155486.
PR   24-SEP-1999;   99US-0155659.
PR   28-SEP-1999;   99US-0156458.
PR   29-SEP-1999;   99US-0156596.
PR   04-OCT-1999;   99US-0157117.
PR   05-OCT-1999;   99US-0157753.
PR   06-OCT-1999;   99US-0157865.
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PR   21-OCT-1999;   99US-0160770.
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PR   21-OCT-1999;   99US-0160815.
PR   22-OCT-1999;   99US-0160980.
PR   22-OCT-1999;   99US-0160981.
PR   22-OCT-1999;   99US-0160989.
PR   25-OCT-1999;   99US-0161404.
PR   25-OCT-1999;   99US-0161405.
PR   25-OCT-1999;   99US-0161406.
PR   26-OCT-1999;   99US-0161359.
PR   26-OCT-1999;   99US-0161360.
PR   26-OCT-1999;   99US-0161361.
PR   28-OCT-1999;   99US-0161920.
PR   28-OCT-1999;   99US-0161992.
PR   28-OCT-1999;   99US-0161993.
PR   29-OCT-1999;   99US-0162142.

  Query Match             13.7%;  Score 146;  DB 21;  Length 746;
  Best Local Similarity   25.4%;  Pred. No. 0.00072;
  Matches   68;  Conservative   37;  Mismatches   91;  Indels   72;  Gaps   10;

Qy      13 QEEENVLDREF----------------LKNELDNVRAQ----LSQKDKEKRDSQVIIDTL 52
           |:|:: ||  |                 :: ||:  | |    |   | |::  :   : |
Db     131 qkekddldarfrevnetaerassqhssmqqelertrqqanealkamdaerqqlrsannkl 190

Qy      53 RDTLEE-------RNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQD------------ 92
           |||:||       :   : :|||:|   : :   ||||:: :|:::
Db     191 rdtieelrgslqpkenkietlqqslldkdqiledlkkqlqaveerkqiavtelsakhqkn 250

Qy      93 -ETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVG--------QSAVEQLA 143
            |  :||     |  : |  | |   ||  | | |  | :|          ::| | |
Db     251 legleaq-vvdalserdkaaetis-slqvllaekeskiaemeaaatgeaarlraaaetlk 308

Qy     144 VYCVSLKKEYENLKE-------ARKASGEVAD-----------KLRKDLFSSRSKLQTVY 185
               || | |  ||       | |:  |:|:           |:|  | |  |    :
Db     309 gelahlksenekeketweascdalkskleiaesnylqaeievakmrsqlgsemsmqtqil 368

Qy     186 SELDQAKLELKSAQKDLQSADKEIMSLK 213
           |  |    ||| |::::     |  | |
Db     369 stkd---aelkgareeinrlqsefssyk 393


RESULT  38
AAG46981
ID   AAG46981 standard; Protein; 788 AA.
XX
AC   AAG46981;
XX
DT   18-OCT-2000  (first entry)
XX
DE   Arabidopsis thaliana protein fragment SEQ ID NO: 59164.
XX
KW   Protein identification; signal transduction pathway; metabolic pathway;
KW   hybridisation assay; genetic mapping; gene expression control; promoter;
KW   termination sequence.
XX
OS   Arabidopsis thaliana.
XX
PN   EP1033405-A2.
XX
PD   06-SEP-2000.
XX
PF   25-FEB-2000; 2000EP-0301439.
XX
PR   25-FEB-1999;   99US-0121825.
PR   05-MAR-1999;   99US-0123180.
PR   09-MAR-1999;   99US-0123548.
PR   23-MAR-1999;   99US-0125788.
PR   25-MAR-1999;   99US-0126264.
PR   29-MAR-1999;   99US-0126785.
PR   01-APR-1999;   99US-0127462.
PR   06-APR-1999;   99US-0128234.
PR   08-APR-1999;   99US-0128714.
PR   16-APR-1999;   99US-0129845.
PR   19-APR-1999;   99US-0130077.
PR   21-APR-1999;   99US-0130449.
PR   23-APR-1999;   99US-0130510.
PR   23-APR-1999;   99US-0130891.
PR   28-APR-1999;   99US-0131449.
PR   30-APR-1999;   99US-0132048.
PR   30-APR-1999;   99US-0132407.
PR   04-MAY-1999;   99US-0132484.
PR   05-MAY-1999;   99US-0132485.
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PR   11-MAY-1999;   99US-0134256.
PR   14-MAY-1999;   99US-0134218.
PR   14-MAY-1999;   99US-0134219.
PR   14-MAY-1999;   99US-0134221.
PR   14-MAY-1999;   99US-0134370.
PR   18-MAY-1999;   99US-0134768.
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PR   20-MAY-1999;   99US-0135124.
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PR   01-JUN-1999;   99US-0137222.
PR   03-JUN-1999;   99US-0137528.
PR   04-JUN-1999;   99US-0137502.
PR   07-JUN-1999;   99US-0137724.
PR   08-JUN-1999;   99US-0138094.
PR   10-JUN-1999;   99US-0138540.
PR   10-JUN-1999;   99US-0138847.
PR   14-JUN-1999;   99US-0139119.
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PR   16-JUN-1999;   99US-0139453.
PR   17-JUN-1999;   99US-0139492.
PR   18-JUN-1999;   99US-0139454.
PR   18-JUN-1999;   99US-0139455.
PR   18-JUN-1999;   99US-0139456.
PR   18-JUN-1999;   99US-0139457.
PR   18-JUN-1999;   99US-0139458.
PR   18-JUN-1999;   99US-0139459.
PR   18-JUN-1999;   99US-0139460.
PR   18-JUN-1999;   99US-0139461.
PR   18-JUN-1999;   99US-0139462.
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PR 30-JUN-1999; 99US-0141287.
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PR 01-JUL-1999; 99US-0142154.
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PR 06-JUL-1999; 99US-0142390.
PR 08-JUL-1999; 99US-0142803.
PR 09-JUL-1999; 99US-0142920.
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PR 14-JUL-1999; 99US-0143624.
PR 15-JUL-1999; 99US-0144005.
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PR 16-JUL-1999; 99US-0144086.
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PR 19-JUL-1999; 99US-0144333.
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PR 20-JUL-1999; 99US-0144352.
PR 20-JUL-1999; 99US-0144632.
PR 20-JUL-1999; 99US-0144884.
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PR 21-JUL-1999; 99US-0145086.
PR 21-JUL-1999; 99US-0145088.
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PR 22-JUL-1999; 99US-0145087.
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PR 23-JUL-1999; 99US-0145218.
PR 23-JUL-1999; 99US-0145224.
PR 26-JUL-1999; 99US-0145276.
PR 27-JUL-1999; 99US-0145913.
PR 27-JUL-1999; 99US-0145918.
PR 27-JUL-1999; 99US-0145919.
PR 28-JUL-1999; 99US-0145951.
PR 02-AUG-1999; 99US-0146386.
PR 02-AUG-1999; 99US-0146388.
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PR 03-AUG-1999; 99US-0147038.
PR 04-AUG-1999; 99US-0147204.
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PR 06-AUG-1999; 99US-0147303.
PR 06-AUG-1999; 99US-0147416.
PR 09-AUG-1999; 99US-0147493.
PR 09-AUG-1999; 99US-0147935.
PR 10-AUG-1999; 99US-0148171.
PR 11-AUG-1999; 99US-0148319.
PR 12-AUG-1999; 99US-0148341.
PR 13-AUG-1999; 99US-0148565.
PR 13-AUG-1999; 99US-0148684.
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PR 17-AUG-1999; 99US-0149175.
PR 18-AUG-1999; 99US-0149426.
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PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
PR 27-AUG-1999; 99US-0151065.
PR 27-AUG-1999; 99US-0151066.
PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.
PR 13-SEP-1999; 99US-0153758.
PR 15-SEP-1999; 99US-0154018.
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PR 20-SEP-1999; 99US-0154779.
PR 22-SEP-1999; 99US-0155139.
PR 23-SEP-1999; 99US-0155486.
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PR 28-SEP-1999; 99US-0156458.
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PR 04-OCT-1999; 99US-0157117.
PR 05-OCT-1999; 99US-0157753.
PR 06-OCT-1999; 99US-0157865.
PR 07-OCT-1999; 99US-0158029.
PR 08-OCT-1999; 99US-0158232.
PR 12-OCT-1999; 99US-0158369.
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PR 14-OCT-1999; 99US-0159329.
PR 14-OCT-1999; 99US-0159330.
PR 14-OCT-1999; 99US-0159331.
PR 14-OCT-1999; 99US-0159637.
PR 14-OCT-1999; 99US-0159638.
PR 18-OCT-1999; 99US-0159584.
PR 21-OCT-1999; 99US-0160741.
PR 21-OCT-1999; 99US-0160767.
PR 21-OCT-1999; 99US-0160768.
PR 21-OCT-1999; 99US-0160770.
PR 21-OCT-1999; 99US-0160814.
PR 21-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160980.
PR 22-OCT-1999; 99US-0160981.
PR 22-OCT-1999; 99US-0160989.
PR 25-OCT-1999; 99US-0161404.
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PR 26-OCT-1999; 99US-0161359.
PR 26-OCT-1999; 99US-0161360.
PR 26-OCT-1999; 99US-0161361.
PR 28-OCT-1999; 99US-0161920.
PR 28-OCT-1999; 99US-0161992.
PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.

Query Match 13.7%; Score 146; DB 21; Length 788;
Best Local Similarity 25.4%; Pred. No. 0.00078;
Matches 68; Conservative 37; Mismatches 91; Indels 72; Gaps 10;

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Qy      13 QEEENVLDREF----------------LKNELDNVRAQ----LSQKDKEKRDSQVIIDTL 52
           |:|:: ||  |                :: ||:  | |    |   | |::  :   : |
Db     173 qkekddldarfrevnetaerassqhssmqqelertrqqanealkamdaerqqlrsannkl 232

Qy      53 RDTLEE-------RNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQD------------ 92
           |||:||       :   : :|||:|   : :   ||||:: :|:::
Db     233 rdtieelrgslqpkenkietlqqslldkdqiledlkkqlqaveerkqiavtelsakhqkn 292

Qy      93 -ETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVG--------QSAVEQLA 143
            |  :||     |  : |  | |   ||  | | |  | :|           ::| | |
Db     293 legleaq-vvdalserdkaaetis-slqvllaekeskiaemeaaatgeaarlraaaetlk 350

Qy     144 VYCVSLKKEYENLKE-------ARKASGEVAD-----------KLRKDLFSSRSKLQTVY 185
               || | |  ||       | |:  |:|:           |:|  | |  |    :
Db     351 gelahlksenekeketweascdalkskleiaesnylqaeievakmrsqlgsemsmqtqil 410
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Qy    186 SELDQAKLELKSAQKDLQSADKEIMSLK 213
          |  |    ||| |:::     |  | |
Db    411 stkd---aelkgareeinrlqsefssyk 435


RESULT  39
AAM79504
ID   AAM79504 standard; Protein; 931 AA.
XX
AC   AAM79504;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 3150.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK52637.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 266-267; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   931 AA;


  Query Match           13.7%;  Score 146;  DB 22;  Length 931;
  Best Local Similarity  24.2%;  Pred. No. 0.00095;
  Matches   59;  Conservative   50;  Mismatches   95;  Indels   40;  Gaps    8;

Qy     13 QEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQ---VIIDTLRDTLEERNATVVSLQQA 69
          : :|   ::| ||  |: ::|   : :: :   |   :    |: |||  |  :  |:
Db    654 enkelesekeqlkkglellkasfkkterlevsyqgldienqrlqktlensnkkiqqlese 713

Qy     70 LGKAEMLCSTLKKQM-------KYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQL 122
          |   ||   ||:| :       | ||| : | |  ::|  :|    | :|:    |: |
Db    714 lqdlemenqtlqknleelkisskrleqlekenksleqetsqlekdkkqlekenkrlrqqa 773

Qy    123 PEVEEMIRDMGV--------GQSAVEQLAVY---CVSLKK-EYENLKEARKASGEVAD-- 168
          :  : :  |          ::  ::: :|   || |:: | || :  ::|: ::
Db    774 eikdttleennvkignlekenktlskeigiykescvrleelekenkelvkratidiktlv 833

Qy    169 KLRKDLFSSRSKLQTVYSELDQAKLELKS-------AQKDLQSAD---------KEIMSL 212
          ||:|| | : | | : ::|::   ||:           | || |         |   :|
Db    834 tlredlvseklktqqmnndlekl thelekiglnkerllhdeqstddsryklleskl estl 893

Qy    213 KKKL 216
          || |
Db    894 kksl 897


RESULT  40
ABG01723
ID   ABG01723 standard; Protein; 1851 AA.
XX
AC   ABG01723;
XX
DT   13-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #1714.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS65910.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity  -
XX
PS   Claim 20; SEQ ID No 32082; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
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CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note: The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1851 AA;


  Query Match            13.6%;  Score 145.5;  DB 22;  Length 1851;
  Best Local Similarity  25.0%;  Pred. No. 0.0025;
  Matches   54;  Conservative   52;  Mismatches   93;  Indels   17;  Gaps    8;

Qy      10 DLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQA 69
           || :| | :  :  |:: ||:  ||   : | :::  ::  || :  :   | :  ::|
Db    1094 dlgeeleal--kteledtldstaaqqelrskreqevnilkktleeeaktheaqiqemrqk 1151

Qy      70 LGKA-EMLCSTLKKQMKYLEQQQDETKQAQE-EAGRLRSKMKTMEQIELLLQSQLPEVEE 127
             :| | |   | :| | ::   :: ||  | | | | :::|  :     :::|| |::
Db    1152 hsqaveelaeql-eqtkrvkanlekakqtlenergelanevkrkk-----veaqlqelqv 1205

Qy     128 MIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKL---QTV 184
             :   |:    :||     |: | :|:      |   : || ||  :  |:|   | :
Db    1206 kfne---gervrteladkvtklqveldnvpgllsqsdsksskltkdfsalesqlqdtqel 1262

Qy     185 YSELDQAKLELKSAQKDLQSADKEIM-SLKKKLTML 219
           | :: || | :  | |:  ::|   :|:|::  |
Db    1263 lqeenrqklslstklkqleeeeeeakhnlekqiatl 1298


Search completed: September  4, 2002, 16:09:10
Job time: 8134 sec
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